State of California
AIR RESOURCES BOARD

STAFF REPORT: Initial Statement of Reasons
For Proposed Rulemaking

PUBLIC HEARING TO CONSIDER AMENDMENTS TO CALIFORNIA'S EMISSION WARRANTY INFORMATION REPORTING AND RECALL REGULATIONS AND EMISSION TEST PROCEDURES

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EXECUTIVE SUMMARY

California Health and Safety Code (H & S Code) Sections 43105 and 43106 authorize the California Air Resources Board (ARB or "Board") to require manufacturers to comply with emission standards and test procedure requirements as part of the new vehicle or engine certification process. Health and Safety Code (H & S Code) section 43105 authorizes ARB to order a recall or other corrective action for violations of its emission standards or test procedures. Under this same authority, ARB has wide discretion to determine the facts constituting compliance with these emission standards and test procedures, to fashion corrective action, including recalls and other remedies, for noncompliance, and to adopt procedures for making these determinations. H & S Code section 43106 requires that production vehicles or engines must in all material respects be substantially the same as the test vehicles manufacturers use to obtain ARB's certification.

The current Emission Warranty Information Reporting (EWIR) and Recall regulations require manufacturers to review all emission-related warranty claims on a quarterly basis to determine the number of repairs or replacements made for each component. Each manufacturer must report warranty activity that exceeds a one percent level and has additional reporting requirements when a component's warranty claim rate exceeds four percent on an engine family or test group basis. When an emission-control component's EWIR rate exceeds a valid four percent level, the defect is considered to be systemic in nature. Should in-use vehicles or engines exhibit a systemic defect and the manufacturer's EWIR submittals acknowledge that fact, the staff considers the situation to be a violation of test procedure requirements and possibly emission standards prohibited by H & S Code Sections 43105 and 43106.

Based on the Board's statutory authority and its experience in the implementation and administration of the EWIR and Recall regulations, the staff has identified three aspects of the existing regulations that need improvement, specifically: (1) the proof required to demonstrate violations of ARB's emission standards or test procedures, (2) the corrective actions available to ARB to address the violations and, (3) the way emissions warranty information is reported to ARB. The proposed amendments target these aspects of the current regulations and, if adopted, will result in corrective action to more vehicles that have defective emission control devices or systems, thereby reducing emissions. The proposal would incorporate the ability of on-board diagnostic (OBD) systems to detect failing components and ensure that vehicles with systemic emission control defects are corrected by the vehicle manufacturers in a timely and more effective manner than is occurring with the current regulations. The staff proposal will also streamline program administration and reduce manufacturer reporting. The staff is proposing that the following amendments would take effect with the 2010 model-year.

1. Proof of Violations
   Staff is proposing that once a group of vehicles exceeds a valid warranty claim rate threshold of four percent or 50 claims (an unscreened ten percent warranty claim rate or 100 claims), whichever is greater, it would be considered to be a systemic defect and a violation of test procedures and possibly emission standards. The manufacturer would be required to implement a recall and/or other corrective action, as specified.

2. Corrective Action
   A manufacturer would be required to provide corrective action whenever it is determined that a systemic defect is present in a specific emission-control component. Depending on the type of the defective emission-control component and whether or not OBD is able to detect the problem, corrective action would be either the recall of all affected vehicles or the extension of the emission warranty for that specific component. All replacement parts in any corrective action would be of improved quality and durability.

3. Reporting Requirements
   The threshold for which an Emission Warranty Information Report (EWIR) is required would be increased from one percent to four percent or 50 claims (whichever is greater) for all model vehicles subject to reporting requirements. Follow up EWIR reports would be required on an annual basis, rather than quarterly. When the unscreened warranty claims rate reaches ten percent (presumed to represent a valid four percent rate), a Supplemental Emissions Warranty Information Report (SEWIR) would be required, unless the manufacturer agrees to immediately perform corrective action. The SEWIR replaces the Field Information Report (FIR), which currently is issued when an unscreened claims rate exceeds four percent. The SEWIR would determine the valid claims rate, and if above a four percent warranty claim rate would trigger the corrective action process. The currently required Emissions Information Report (EIR) would no longer be required.

The proposed revisions to the regulation will reduce emissions to the extent that it allows corrective action to be performed that under the current regulation may not occur. For example, in a recent Daimler-Chrysler Corporation enforcement case involving disintegrating catalysts, staff believes more defective catalysts would have been replaced had these amendments been in effect. Because the rate at which future corrective action is appropriate can not be predicted, we have not attempted to quantify the emission reductions resulting from the revisions. However, the primary intent of the in use regulations is to ensure the benefits envisioned by the vehicle and engine emission standards are ultimately obtained.

Cost to the manufacturers should be reduced by the significantly minimized reporting requirement. However, to the extent the regulations increase the number of corrective actions implemented, costs to those manufacturers that have produced vehicles with defective components will increase. However, staff estimates the industry wide cost will be roughly equivalent to today's cost.

The proposed amendments to the EWIR and Recall regulations and associated emission test procedures will result in corrective action to more vehicles that have defective emission control components and in the reduction of manufacturer reporting requirements. The ARB staff recommends that the Board adopt the proposed amendments to Sections 1958, 1956.8, 1961, 1976, 1978, 2112, 2122, 2136, 2141 and new article 5, sections 2166-2174, title 13, CCR, set forth in the proposed Regulation Order in Appendix A. The ARB staff also recommends that the Board adopt the proposed amendments to the test procedures as set forth in Appendix B in order to clearly link the durability demonstration of the certification procedures and the in-use program requirements.

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I. Introduction

This report describes the California Air Resources Board (ARB or "Board") staff's proposed amendments to the Recall and Emission Warranty Information Reporting (EWIR) Regulations contained in the California Code of Regulations (CCR), title 13, Sections 2111, 2112, 2122, 2123, 2135 and 2141-2149, and also, the emission test procedures CCR, title 13, Sections 1956.8, 1958, 1961, 1976 and 1978. The amendments create a new article 5, sections 2166-2174, in title 13, CCR that would replace the current regulations but is aimed at clarifying, streamlining, refining, and enhancing the existing program. One goal of the original regulations was to ensure, pursuant to the applicable test procedures, the durability of emission-control components installed by vehicle and engine manufacturers and provide corrective action when components fail to perform properly in use. The proposed amendments will increase the effectiveness of the program, and reduce administrative costs.

Section 43105 of the California Health and Safety Code (H & S Code) states that, if a manufacturer of motor vehicles or engines certified for sale in this state violates emissions standards or test procedures, and has failed to take corrective action, which may include recall of the vehicles or engines, those vehicles or engines in vehicles may not be offered for sale, sold or registered in this state. It also states the procedures for determining, and the facts constituting, compliance or failure of compliance shall be established by the state board. The manufacturer is also afforded the right to a public hearing to present their objections to the necessity for, or the scope of, any required recall. Staff considers "test procedures" to include all certification requirements [e.g., on-board diagnostic (OBD) system approval, actual exhaust and evaporative emissions testing to show compliance, durability demonstration of

the emission control systems for the certified useful-life period, warranty and warranty reporting requirements, etc.]. Any violation of either emission standards or test-procedure requirements would constitute a violation of H & S Code 43105.

H & S Code Section 43106 requires manufacturers to produce vehicles or engines that are …"in all material respects, substantially the same in construction as the [certification] test motor vehicle or engine …." When a significant number of the same emission-control component fails in customer use (and within the certified useful life period), it is clear that production vehicles do not satisfy this statutory requirement since production vehicles are exhibiting problems that the certification's durability demonstration vehicle(s) did not experience. When a component's failure rate exceeds a valid four percent, the ARB considers the problem to be systemic in nature, and appropriate corrective action, which may include recall, is required. This failure rate is also indicative of the fact that the production vehicles are somehow not substantially similar to the vehicles that the manufacturer tested to obtain ARB's certification.

II. History of the Program

In December of 1982, the Board adopted regulations which established the in-use vehicle recall program. The regulations were intended to reduce manufacturer-related excess emissions by: (1) ensuring that noncompliant vehicles are identified, recalled and repaired to meet the applicable emission standards and comply with the test procedures in customer use; and (2) encourage manufacturers to improve emission control designs and durability to avoid the expense and adverse publicity of recall. The program provided for ARB testing of emissions from properly maintained in-use vehicles to determine whether they comply with emission standards during the useful life period. Once noncompliance was identified in a substantial number of vehicles or engines, a manufacturer may perform a voluntary recall. If a manufacturer is unwilling to implement a voluntary recall, the ARB can order the manufacturer to recall the noncompliant vehicles. Under the initial recall program, manufacturers were also required to report to the ARB known emission-related failures and what is being done to remedy them.

During the early years of the program, the ARB staff identified problem areas in the regulations that resulted in low capture rates, delays in recall implementation, and inconsistent reporting of failed emission-related components, among others. In 1988 the staff proposed and the Board adopted amendments to the in-use recall regulations to improve the efficiency and intent of the program and created the emission warranty reporting program. After consideration of the proposals and witness testimony in September of 1988, the Board directed the staff to discuss potential modifications with industry and return to the Board in November with a final proposal. After

meeting with industry and conducting a public workshop, the staff proposed changes to their original recommendations that included (1) linking recalls based on component failures to emission standard exceedances instead of excess emissions, and (2) withdrawing a provision which linked new vehicle/engine certification to in-use failures. These two actions are related to staff's current proposed modifications.

The first modification, linking the recalls to component failures that lead to exceedance of the emission standards, allowed the manufacturers to test properly maintained in-use vehicles with the defective emission component to demonstrate that emissions standards are not exceeded. It also allowed the use of an engineering analysis or tests on laboratory vehicles or engines, when appropriate, to demonstrate the effect of the failure in lieu of vehicle emission testing. The intention was that no recall would be required if the individual vehicles or engines projected emissions met the standards within the useful life. This provision has been misinterpreted and used to support manufacturer's claims that no corrective action is required unless it can be shown that an entire group of similar vehicles exceeds an emission standard, on average.

The second modification withdrew staff's proposal to link certification test procedures to in-use failures. Initially staff proposed that a substantial number of in-use failures would constitute a violation of the certification test procedures, which in turn subject the engine family to a recall. In 1988 it was believed that this provision would no longer be necessary since the recalls would be based on exceedance of the standards instead of an increase in emissions considered to be a violation of test procedures. Staff now feels this link must be established to clearly incorporate the responsibility of the manufacturer to assure component durability for the useful life of the vehicles or engines during the certification process.

The current warranty reporting regulations apply to all on-road 1990 and newer model-year passenger cars, light-, medium-, and heavy-duty trucks, California-certified engines used in such vehicles, and motorcycles. The warranty reporting procedures are a mechanism for identifying, tracking and causing the repair of vehicles with defective emission-control components caused by poor design, materials or workmanship. Manufacturers are required to track warranty claims submitted by their dealers. When the claims rate for a warranted part (or emission-control component) reaches a specified rate, the manufacturer must review its warranty data for that component to determine if the warranty activity indicates that a valid "defect" exists. When it is determined that a defect exists, the manufacturer must evaluate the facts and quantify the emissions impact of the defect and, if necessary take action to correct the problem. Corrective action typically involves a recall of a group of vehicles that use the defective component. Manufacturers must report to ARB at various stages of this process.

The first step in the warranty reporting process requires that a manufacturer submit an Emission Warranty Information Report (EWIR) whenever it determines that an emission-control component for a given engine family or test group reaches an unscreened[1] one percent or 25 component replacement rate (whichever is greater). A manufacturer must continue to analyze warranty claims and report to ARB on a quarterly basis. When the warranty claims for an emission-control component reach an unscreened four percent or 50 component replacement rate (whichever is greater), the manufacturer must submit a Field Information Report (FIR).

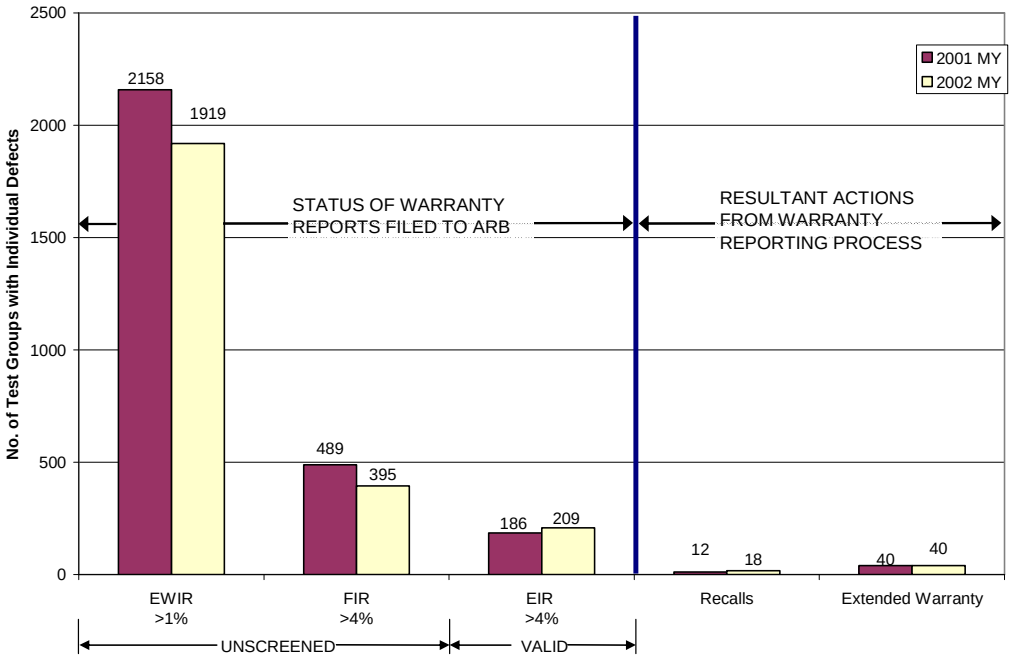
The FIR contains the warranty repair rate with any invalid data removed. If this validated failure rate is less than four percent, the manufacturer must determine and report the date when the projected replacement rate is expected to reach four percent. If the manufacturer determines that a valid defect exists (now considered to be "systemic" in nature), the manufacturer is required to submit an Emissions Information Report (EIR) to quantify the emissions impact of the defect and, if necessary, determine what action is necessary to correct the problem. Corrective action has either been a recall or in some cases an extended warranty for the failing component.

III. Warranty Reporting History and Data Analysis

Figure 1 shows a historical representation of the warranty reports filed for the 2001 and 2002 model year vehicles. These years were used to show overall warranty reporting activity because the reporting obligations are nearly complete and the data represents typical reporting and corrective action efforts taken by manufacturers.

[1] Unscreened – The tabulation of dealership emission warranty service records for emission-related components as they apply to individual engine families or test groups without purging or modifying the data.

Figure 1- Historical Emission Warranty Reporting Data
Based on Current Program 2001-2002 MY Reports



The data show that 186 and 209 emission components for the 2001 and 2002 model years, respectively, exceeded a valid four percent warranty claim rate (indicating a systemic defect) and the manufacturers submitted EIRs. However, only about 28 percent of these defective components resulted in corrective action. In most cases where corrective action was not taken, manufacturers argued that the defective emission component would not cause an emission standard to be exceeded, or that the OBD light would cause the owner to seek repair (under the manufacturers' applicable emissions warranty for a while, and at the owner's expense if the failure were to occur after the end of the warranty period). The typical emissions warranty for passenger cars, light- and medium-duty vehicles is three years or 50,000 miles for most components, or seven years or 70,000 miles for certain high cost parts. Staff is also aware that some manufacturers did not submit EIRs when the FIR indicated a valid four percent failure rate.

This evidence reflects a weakness of the current regulations and their inability to remedy defective components, either by recall or other corrective action. Two recent examples, discussed in section IV, illustrate this problem. In a Toyota case which went to trial, over 300,000 vehicles with evaporative emissions monitors that the ARB staff determined to be defective were allowed to remain on the road uncorrected, and a Chrysler recall resulted in only a small percentage of the vehicles containing catalysts the ARB staff believed to be defective to be corrected by the company.

IV. Impacts – Why Do We Need a Change?

A. Overview

ARB's emission warranty reporting and recall regulations have prompted a number of recalls of defective components. Nevertheless, over time manufacturers have exploited weaknesses in the regulations to avoid taking corrective action for some defective components. These weaknesses stem from regulatory provisions that have been interpreted to require the ARB in a contested recall to undertake time-consuming, resource-intensive testing to prove that each known class or category of vehicles with a pervasive emission component failure will exceed quantitative emissions standards on average over the useful life. Especially in cases that involve large vehicle populations or component failures that occur gradually, this standard is unrealistic, frustrates addressing known defects and effectively prevents recalls in situations where they are warranted. Under the current regulations, the potential expense of conducting emission testing to support a contested recall may alone deter the ARB from ordering one.

The current regulations authorize recalls as the sole means of addressing failures of emissions components, and do not explicitly provide for other types of corrective action such as extended warranties. In many situations an extended warranty can be effective in assuring defective components are replaced. Manufacturers have voluntarily agreed to extend warranties in many cases, as shown in Figure 1, however ARB can not order a manufacturer to extend a warranty.

In addition, the current regulations were adopted before the Board adopted the on-board diagnostic regulations and do not reflect the ability of OBD systems to demonstrate when component failures occur and test procedures have been violated. When combined with a warranty, OBD can be effective in ensuring owners replace defective emission components.

B. Specific Cases and Potential Impacts

Discussed below are two "real world" cases involving known emission-control defects that, in staff's opinion, did not result in proper corrective action. They are the driving factors for staff's proposal.

<u>Daimler-Chrysler Corporation OBD Catalyst Case</u>

Through its EWIR program, the ARB determined that some 151,000 Daimler-Chrysler Corporation (DCC) 1996 through 1999 model-year light-duty trucks were equipped with catalytic converters with internal substrates that would begin to rattle, ultimately fall apart and exit through the exhaust pipe. Some individual engine family warranty claim rates exceeded 72 percent,

clearly indicating a systemic problem. Individual light-duty trucks exhibited hydrocarbon emission levels more than three times the applicable standard. DCC would not agree to recall all of the affected light-duty trucks.

Faced with the burden of testing 30 individual engine families to show an emissions exceedance, on average, for each family, the ARB instead entered into a settlement agreement with DCC that corrected some, but not all, of the light-duty trucks in question. Of the 151,000 trucks with EWIR rates greater than four percent, only about 41,000 (27%) were recalled under the agreement. The staff believes that more than 100,000 DCC light-duty trucks are operating in California with potentially defective catalytic converters. Also, the OBD system on some of these trucks failed to detect the disintegrated catalysts.

To provide a sense of the potential emission impact of the failure to recall the 100,000 DCC trucks with defectively designed catalytic converters, staff has analyzed a best case and a worst case scenario. In the best case scenario, we assumed the catalysts cracked but did not fully disintegrate. Some of the vehicles ARB tested were in this condition, and data showed a 0.18 gram per mile NOx increase compared to a vehicle with a normal catalyst. Note in this case the vehicle with the cracked catalyst did not exceed the emission standard, even though it had higher emissions. We assumed only 20 percent of the affected catalysts had cracked catalysts, and the rest would not deteriorate over their remaining life of 8 years. In the worst case scenario, we assumed the catalyst would continue to deteriorate to 1.7 times the emission standards (i.e., just below the OBD threshold of 1.75 times the emission standards). Assuming that 72 percent of the vehicles experienced this amount of catalyst deterioration (equal to the worst performing engine family that used the defective catalyst, with a remaining vehicle life of 8 years) the results of this failure would increase by a factor of 48 times the total non-methane hydrocarbons (NMHC) plus oxides of nitrogen (NOx) as compared to the first scenario causing a significant excess emissions impact on air quality. The following table contains the results.

Table 1
Potential Smog-Forming Emission Increases
Due to DCC Defective Catalysts
100,000 Light Duty Trucks

Catalyst Scenario	ROG Emission Increase per Vehicle: g/mi	NOx Emission Increase per Vehicle: g/mi	Exceeds standards?	Assumed % of fleet with defective catalysts	NMHC Cumulative emission increase: tons/year	NOx Cumulative emission increase: tons/year
Cracks	0.002	0.183	NO	20%	0.59	54.4
Deteriorates	1.7 * STD (0.782)	1.7 * STD (1.67)	YES	72%	837.1	1783.4

As shown in the table, the emission increase of these trucks, which account for only 0.04 percent of the on-road fleet of light duty vehicles, are significant in both the best and worst case scenarios.

Toyota Motor Corporation OBD Evaporative Diagnostics Case

In 1998, the ARB ordered the recall of more than 330,000 Toyota Motor Corporation 1996 through 1998 model-year passenger cars and light-duty trucks due to an identified defect with the evaporative emission leak-check monitor of the vehicles' OBD system. The recall was contested by Toyota and ultimately brought before an administrative law judge to determine if the recall was justified. In his ruling that was based on current regulatory language, the judge determined that an exceedance of the applicable emissions standards must to be demonstrated by the ARB to allow the recall order to be enforceable.

The ruling resulted in more than 300,000 Toyota vehicles operating in California today with what staff believes to be defective OBD systems. Regardless of whether or not the ARB demonstrated that emission standards were exceeded on average, without the proper recall repairs, these vehicles will not identify a leak in the evaporative emission control system of individual vehicles. The owners will not be notified by the OBD's malfunction indicator light that their vehicles are emitting excess emissions and the problem will not be detected during a Smog Check inspection. As a result of this recall case, the Board, in a subsequent action, adopted regulations that augment staff's ability to pursue corrective action for OBD-specific failures without demonstrating the affected vehicles on average exceed an emission standard. The staff's proposal will accomplish the same objective for the emission warranty reporting and recall program.

V. Legal Analysis

A. How The Warranty Reporting and Recall Regulations Work Now

Currently, exceeding emissions warranty reporting levels in a particular product line starts an ARB Executive Officer (EO) inquiry into whether a recall is appropriate. "An engine family, test group or a subgroup shall be subject to a recall when the number of failures of a specific emission-related component exceeds the failure levels" in emission information warranty reports set forth in title 13 CCR section 2143. This happened, for example, in the DCC case mentioned above, making them subject to recall, unless the EO "determines that a recall is unnecessary pursuant to the criteria set forth in Section 2148(a) and 2148(b)" (13 CCR section 2143.) . "Subject to recall" means that the vehicles may be recalled by the EO based on this warranty information, provided the EO makes the findings required by section 2123(a), but the

manufacturer may challenge the EO's recall order by requesting a hearing. Exceeding the current warranty reporting thresholds is one piece of evidence that would be considered in such a hearing.

The warranty reporting regulations (sections 2141-2148) offer an opportunity to require manufacturers to submit data about the emissions consequences of failing components, but in practice obtaining this information has been difficult given the number of reports filed, limited staff and resources to review them, lack of cooperation by manufacturers and limited consequences for manufacturers providing incomplete information.

The EO is obligated to review the emission information reports and other relevant information before ordering a recall. Section 2148(a) requires the EO to consider a number of criteria in deciding whether to issue a recall order (e.g., validity of data, emission impact of failure on individual engines, increased tampering, and performance). If the manufacturer demonstrates to the EO's satisfaction that the failure is limited to a "less-than-substantial" percentage of vehicles and does not represent a "pervasive defect . . . likely to affect a substantial number" of vehicles but is likely to be corrected under warranty, then no recall shall be required. Section 2148(b).

If, however, the EO determines that a recall may be warranted, the EO may issue a recall order if he or she can make the findings the regulation requires. These findings are that, "a substantial number of a class or category of vehicles or engines produced by that manufacturer, although properly maintained and used, contain a failure in an emission-related component which, if uncorrected, may result in the vehicles' or engines' failure to meet applicable standards over their useful lives; or whenever a class or category of vehicles or engines within their useful lives, on average, do not conform to the standards . . ." Section 2123 (a). If the EO makes these findings, the manufacturer must be notified that the EO has determined that a recall is warranted. Section 2149. The EO may base the determination on "warranty information reports, field information reports, enforcement testing results, or any other information". Section 2123(a).

These findings form the elements of the case that the EO has to address to prevail in the event that a manufacturer requests a hearing to contest the EO's recall order under section 2124. When the EO makes the findings, exceedance of the emission standards is presumed, unless the manufacturer provides evidence that it tested properly maintained vehicles containing the defect according to the regulation's requirements and the vehicles pass. Section 2147. The manufacturer may elect to provide this rebuttal evidence when the recall order is issued, or later if the manufacturer requests a public hearing to challenge the EO's finding of nonconformity and the necessity for or the scope of any ordered recall. Section 2124. This is what occurred in the Toyota case.

At the hearing, the manufacturer (and the EO) may offer evidence about the emissions impact of the alleged defect and this becomes the pivotal issue in deciding whether the EO's recall order will be upheld. Health and Safety Code section 43105 provides that vehicles may be recalled for violations of emission standards or test procedures. In the Toyota recall case the judge held that ARB had to show a violation of the emission standards to get even an OBD recall.

In-use vehicle enforcement test procedures provide a way of proving the emissions impact of an alleged defect. These procedures require that the EO obtain 10 properly maintained vehicles in the suspect engine family, test group or subgroup (Section 2137) and test them according to the requirements of section 2139. If three or more vehicles fail, the EO must inform the manufacturer, which is required to submit an emissions information report (EIR). The vehicles are subject to recall, pending the EO's review of the report. If, however, the tests under section 2139 indicate that the average emissions of the test vehicles exceed the standards for any pollutant, the EO may order a recall, unless the manufacturer submits an influenced recall plan. Section 2140. In practice the expense of conducting this kind of testing, especially in cases involving large vehicle populations or components that fail over time, has been a major deterrent to ordering a recall at all.

In cases involving large vehicle populations or components that fail gradually, it is virtually certain that manufacturers will request hearings and contest the EO's recall order rather than implementing a recall, given the stakes involved. The current regulations also encourage manufacturers to wait and present the emissions testing to support their rebuttal case in the hearing, not before. This is what occurred in the Toyota recall hearing. The current regulations make it also likely that manufacturers will do extensive testing to rebut the presumption of emissions exceedance. In the DCC case, despite the pervasive nature of the problems plaguing the catalysts on the affected vehicles, the amount of emission testing that the current regulations would have required if a recall had been ordered effectively prevented the pursuit of that remedy. And, the current regulations provide for no remedy other than recall, despite the fact that the statutes authorize other types of corrective action.

B. ARB's Authority to Order Recalls or Corrective Action

Health and Safety Code Section 43105 provides:

"No new motor vehicle, new motor vehicle engine, or motor vehicle with a new motor vehicle engine required pursuant to this part to meet the emission standards established pursuant to Section 43101 shall be sold to the ultimate purchaser, offered or delivered for sale to the ultimate purchaser, or registered

in this state *if the manufacturer has violated emission standards or test procedures and has failed to take corrective action, which may include recall of vehicles or engines, specified by the state board in accordance with regulations of the state board.* If a manufacturer contests the necessity for, or the scope of, a recall of vehicles or engines ordered pursuant to this section and so advises the state board, the state board shall not require such recall unless it first affords the manufacturer the opportunity, at a public hearing, to present evidence in support of the manufacturer's objections. If a vehicle or engine is recalled pursuant to this section, the manufacturer shall make all necessary corrections specified by the state board without charge to the registered owner of the vehicle or vehicle with such engine or, at the manufacturer's election, reimburse the registered owner for the cost of making such necessary corrections. *The procedures for determining, and the facts constituting, compliance or failure of compliance shall be established by the state board*." Emphasis added.

Health and Safety Code section 43105 gives ARB a great deal of authority to order a recall or other corrective action for violations of its emission standards or test procedures. Along with this authority, section 43105 gives ARB wide discretion to determine the facts constituting compliance with emission standards and test procedures, to fashion remedies for noncompliance and to adopt procedures for making these determinations. The proposed amendments all fall within section 43105's grant of authority, and within the authority bestowed by the other statutes discussed below as well.

Warranty reporting thresholds are linked to vehicle durability and can also be considered test procedures, the violation of which would entitle ARB to order recall or other corrective action. The Health and Safety Code contains no definition of the term "test procedures" comparable to the definition it provides for "emission standards", but the language of sections 43104 and 43105 suggests that "test procedures" means the test procedures that manufacturers must conduct to obtain ARB's certification to sell their products in California. Health and Safety Code section 43104 provides, in pertinent part:

> "For the certification of new motor vehicles or new motor vehicle engines, the state board shall adopt, by regulation, test procedures and any other procedures necessary to determine whether the vehicles or engines are in compliance with the emissions standards established pursuant to Section 43101. "

The staff proposes to make the warranty reporting thresholds part of existing test procedures, providing solid grounds for the ARB to order recall or other corrective action when a warranty reporting threshold is violated.

Health and Safety Code section 39027 defines "emission standards" as "specified limitations on the discharge of air contaminants into the atmosphere". The staff believes that many warranty claims are made because owners are prompted to seek repairs by their vehicles' OBD systems. OBD systems use malfunction criteria based on numeric multiples of various certification emission standards and are themselves numerical, quantifiable emission standard under Health and Safety Code sections 39027[2]. This lends further statutory support for the staff's proposal.

The staff also believes that the proposed amendments find support in Health and Safety Code section 43106, which provides:

> "Each new motor vehicle or engine required pursuant to this part to meet the emission standards established pursuant to Section 43101 shall be, in all material respects, substantially the same in construction as the test motor vehicle or engine, as the case may be, which has been certified by the state board in accordance with this article. However, changes with respect to new motor vehicles or engines previously certified may be made if such changes do not increase emissions above the standards under which those motor vehicles or engines, as the case may be, were certified and are made in accordance with procedures specified by the state board."

At the time of certification, manufacturers test prototype vehicles to demonstrate that their emissions control components will be durable and last for the useful life of the vehicle. When emissions components then fail at the rate of four percent or 50 in use, the staff believes that this is strong evidence that the production vehicles are not, in all material respects, substantially the same in construction as the test vehicles, and are in violation of Health and Safety Code section 43106 and test procedures.

There are several other sources of statutory authority to adopt the proposed amendments to the warranty/recall regulations. For example, Health and Safety Code section 39600 bestows broad authority on the ARB to "do such acts as may be necessary for the proper execution of the powers and duties granted to, and imposed upon, the state board by

[2] For example, exhaust after-treatment devices play a critical role in reducing emissions (often by themselves reducing emissions by over 95 percent) and a failure identified by the OBD system such cases indicates an exceedance of the emission standard by 1.75 times.

this division and by any other provision of law." Health and Safety Code section 39601 requires the ARB to adopt regulations to carry out the duties that section 39600 bestows.

The staff's proposal establishes, on the whole, test procedures and standards to determine compliance with the test procedures and possibly emission standards ARB has adopted or will adopt. This provides a basis of authority for the staff's proposal similar (but not identical) to the authority that supports ARB's 2003 amendments to the OBD recall regulations:

> "The adopted OBD II regulation, title 13, CCR sections 1968.1, and the proposed regulation for 2004 and subsequent model year vehicles, title 13, CCR section 1968.2, establish both emission standards and test procedures for certification to those standards. The ARB expressly adopted title 13, CCR section 1968.1 pursuant to authority granted by the Legislature to adopt and implement emission standards and test procedures under the Health and Safety Code. Likewise, the staff is proposing that section 1968.2, title 13, CCR be adopted pursuant to the same authority. In so acting the Board has not, and will not have, exceeded its authority under the statute. The existing and proposed regulations clearly establish quantitative emission standards for most, if not all, of the major monitoring systems (e.g., detection of malfunctions before emissions exceed 1.5 times the applicable tailpipe emission standard). These malfunction criteria establish specified limitations on the discharge of air contaminants into the atmosphere and thus meet the definition of "emission standards" as defined at section 39027 of the Health and Safety Code." (Staff Report: Initial Statement of Reasons for Proposed Rulemaking, "Technical Status and Revisions to Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines (OBDII)" ("OBDII ISOR", p. 72.)

The staff's proposal would establish the warranty reporting levels as part of the certification test procedures, the violation of which would entitle the Executive Officer to order a recall or other corrective action, just as the violation of the requirements of the OBD regulations authorize a recall or other corrective action also.

The rationales advanced for the OBD recall regulations are discussed further below because they relate to the warranty/recall proposal in several other ways, but first some of the other sources of statutory authority for the proposal are listed here.

Health and Safety Code section 43013(a) provides:

> "The state board may adopt and implement motor vehicle emission standards, in-use performance standards, and motor vehicle fuel specifications for the control of air contaminants and sources of air pollution which the state board has found to be necessary, cost-effective, and technologically feasible, to carry out the purposes of this division, unless preempted by federal law."

Health and Safety Code section 43018 provides, in pertinent part:

> "(a) The state board shall endeavor to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state standards at the earliest practicable date.
>
> (b) Not later than January 1, 1992, the state board shall take whatever actions are necessary, cost-effective, and technologically feasible in order to achieve, not later than December 31, 2000, a reduction in the actual emissions of reactive organic gases of at least 55 percent, a reduction in emissions of oxides of nitrogen of at least 15 percent from motor vehicles. These reductions in emissions shall be calculated with respect to the 1987 baseline year. The state board also shall take action to achieve the maximum feasible reductions in particulates, carbon monoxide, and toxic air contaminants from vehicular sources.
>
> (c) In carrying out this section, the state board shall adopt standards and regulations which will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel, including, but not limited to, all of the following:
>
> (1) Reductions in motor vehicle exhaust and evaporative emissions.
>
> (2) Reductions in emissions from in-use emissions from motor vehicles through improvements in emission system durability and performance.

(3) Requiring the purchase of low-emission vehicles by state fleet operators.

(4) Specification of vehicular fuel composition."

Also see Health and Safety Code sections 43101 and 43102.

C. The OBD II Recall Regulations

Issues of authority arose when the Board adopted amendments to the OBD II recall procedures, title 13 CCR sections 1968.1-1968.5. In the staff report for that regulation the staff discussed several rationales for adopting the OBDII regulations that apply here as well. First is that failure of an emission-related part should be grounds for a recall, irrespective of whether the failure causes a quantifiable increase in tailpipe or evaporative emissions of the entire group of affected vehicles:

> "the proposed regulation would clarify that in ordering a recall of a nonconforming OBD II system, the Executive Officer would not need to demonstrate that the nonconforming system directly causes a quantifiable increase in the tailpipe or evaporative emissions of the entire group of affected vehicles nor would a manufacturer be able to overcome the recall by making such a showing. The recall of an effectively nonfunctional monitoring system is necessary because the existence of such a noncomplying system effectively defeats the purposes and objectives of the OBD program and potentially undermines the emission reduction benefits that have been projected from adopted motor vehicle emission reduction programs. It has been the long-standing position of the ARB that it is necessary to repair or replace such nonconforming systems because they are not capable of detecting future malfunctions of the vehicle's emission control systems and that this would likely lead to future emission increases." OBD Recall ISOR pp. 78-79.

Second is that while it is inherently speculative to forecast the future emissions consequences of failed emissions components that fail over time it is beyond dispute that as motor vehicles age and accumulate high mileage, their emission control systems deteriorate and increasingly malfunction, causing emissions from motor vehicles to increase, and for these reasons, the ARB needs to be able to order recalls on the basis of failing emissions-related components, not just on the basis of average emissions exceedances in an affected vehicle group:

"As stated, it is beyond dispute that as motor vehicles age and accumulate high mileage, their emission control systems deteriorate and increasingly malfunction, causing emissions from motor vehicles to increase. The ARB adopted the OBD II requirements to address this problem and, specifically, to provide assurance that when malfunctions in emission control systems do occur, they will be expeditiously discovered and repaired. To properly perform these objectives, the OBD II system itself must be functional and capable of detecting malfunctions when they occur. To minimize potential emission increases in future years, it is imperative that the identified, effectively nonfunctional OBD II systems be recalled and repaired at the time noncompliance of the systems is discovered. No one knows or can accurately predict how well emission control systems of different manufacturers will work 10, 20, or more years from now. This is especially true when vehicles are being required to meet increasingly stringent emission standards, requiring new and complex technologies to be utilized.

Contrary to the contentions of the automobile manufacturers, any forecasting of future compliance with tailpipe and evaporative emissions standards would be much more difficult to do in the case of an OBD II nonconformity than in the case of failed emission related component. In the latter case, the manufacturer knows specifically what emission-related component has failed (and the manner in which it has failed) and can conduct in-use emission testing of the vehicle fleet with the known failed part. In the case of the nonconforming OBD II system, the only thing known is that the OBD II monitor is not working. At the time of such failure, neither the Executive Officer nor the manufacturer knows what emission-related part or combination of parts might fail in the immediate or distant future without illumination of the MIL. Such an evaluation, which entails the ability to accurately predict which part(s) will fail, in what manner, at what failure rate, and at what point in the vehicle's life, would be, at best, extremely speculative. As stated before, appropriate remedial action should be based solely on compliance (or lack of) with the OBD II requirements. The ability of the Executive Officer to order appropriate remedies, including recall, irrespective of a finding of direct emissions consequences, is also necessary so that California can continue to meet its obligations under the federal CAA that the states incorporate OBD checks as part of their inspection and maintenance (I/M) programs. This has been an objective of the OBD II regulation since its inception." (OBD ISOR pp. 79-80.)

Based on its experience, the staff believes that it is also inherently speculative to forecast future compliance in the case of emissions related components.

Third is that properly operating emissions components are crucial to the success of OBD and I/M programs:

> "To protect the benefits of an OBD-based I/M check, it is imperative that functional and viable OBD II systems are installed in all certified vehicles. To assure that they are, it is necessary to assure that all OBD II systems that are found to be effectively nonfunctional be recalled and repaired, irrespective of whether one can make a showing that the vehicles, equipped with such nonfunctioning systems, on average comply with applicable tailpipe certification standards." (OBD II ISOR p. 81.)

The OBD II ISOR contains this final summary of the authority issue:

> "In summary, given that the OBD II regulation establishes both emission standards and test procedures that are required for certification of new motor vehicles, the ARB has undisputed authority under Health and Safety Code section 43105 to adopt the OBD II-specific enforcement regulation. Beyond this express grant of authority, Health and Safety Code, section 39600 further entrusts the ARB with general powers to do such acts as may be necessary for the proper execution of the powers and duties granted to it under Health and Safety Code. The ARB adopted the OBD II regulation pursuant to the powers and duties granted to the ARB under Health and Safety Code sections 43013(a), 43018, 43101 and 43104. Accordingly, under its general powers, the ARB is authorized to adopt all necessary enforcement regulations to assure compliance with the OBD II requirements." (OBD II ISOR pp. 91-92)

VI. How Staff Proposes to Change The Program

A. Overview

In 2003, the Board adopted amendments to the OBD regulations (title 13 CCR sections 1968.1-1968.5) to improve their enforceability. Based on its experience administering the emissions warranty reporting and recall programs, the staff proposes to amend the emissions warranty and recall regulations to improve their enforceability, streamline the warranty reporting regulations, simplify the grounds for recall, provide for other corrective action (including extended warranties) and clarify that hearings are available only when the EO orders a recall. As discussed in more detail below, the Board

adopted the OBD program after it adopted the warranty reporting and recall regulations. The staff's proposal would utilize the power of OBD systems to detect violations of emissions standards and test procedures in use and integrate the OBD program with the emissions warranty reporting and recall programs, something the staff believes is long overdue. The proposed amendments would link the emissions warranty reporting and recall programs to ARB's durability test procedures in a meaningful way.

The staff's experience indicates that improvements to the current regulations should be made in the areas of warranty defect reporting and in the grounds upon which recalls or other corrective actions (such as extended warranties) may be ordered when warranty defect rates reach levels that indicate pervasive problems with emissions components exist, four percent or 50 claims, whichever is greater. Based on this experience, the staff believes that the improvements it is proposing and other proposed improvements such as clarifying when hearings are available consistent with Health and Safety Code section 43105 would increase the likelihood that failing emissions components will be corrected and excess emissions attributable to them will be avoided. The staff believes that it does not serve the goals of the ARB's motor vehicle emissions control program to allow, as the current regulations do, manufacturers to avoid correcting emissions components that fail in significant number in use by showing that the affected vehicles will not on average violate numerical emission standards over their useful lives. The staff believes that when emissions components fail in significant numbers in use it is very likely that excess emissions will occur and, further, that it is reasonable for manufacturers to be required to correct these components, or at least to extend the emissions warranty applicable to them so that consumers, warned of the failures by their vehicles' on-board diagnostic systems, will be able to have the failing components repaired or replaced under warranty. The proposed amendments would accomplish these goals.

After the Board adopted the emissions warranty reporting and recall regulations in 1988, it adopted the on-board diagnostic (OBD) regulations and amended them several times, most recently in 2003. The OBD systems have matured over time and the OBD program has proven to be quite effective, but it has not been integrated into the warranty reporting and recall programs. The staff believes that it is time to utilize in the emissions warranty and recall programs the ability of OBD systems to detect failing emissions components and alert drivers to their presence. OBD systems and the warranty claims they generate can provide data that demonstrates when a pervasive problem with emissions control components exists. OBD systems also employ malfunction criteria that indicate when individual vehicles violate emission standards. The proposed amendments would capitalize on these powerful abilities of OBD systems to improve the emissions warranty reporting and recall regulations by integrating the emissions warranty reporting, recall and OBD programs. The staff proposes to do this by establishing that when defects reported in the

warranty process reach a level of four percent or 50 (whichever is greater) in any engine family or test group, the Executive Officer may order that the affected vehicle population be recalled or subjected to corrective action.

The proposed amendments would establish that excess warranty claims rates are violations of the durability requirements of ARB's test procedures. The proposed amendments would link the test procedures' durability requirements with actual component durability as demonstrated by emissions warranty data and OBD detection capabilities. By forging this link, the proposed amendments would integrate a number of ARB programs: the test procedures, emission standards, emissions warranty reporting, recalls and the OBD program. OBD detection of failing emissions components can demonstrate violations of emissions standards and/or test procedures. The proposed corrective action would include recall or requiring manufacturers to extend warranties for failing emissions control components to specified periods during which time OBD may warn additional owners to take their vehicles in to have the failing components repaired. It should be noted that any replacement part utilized in any corrective action shall be of improved quality and durability.

Since the thrust of the warranty reporting threshold is the durability of vehicles' emission control systems, the durability portion of the test procedures is an entirely appropriate place to forge a link between the proposed warranty reporting and recall amendments and the test procedures. Durability provisions exist in ARB's test procedures.[3] It is here where the proposed regulations would establish a link between the test procedures and the proposed warranty reporting thresholds by amending these sections to include a provision that incorporates the warranty reporting threshold, requiring that at certification, manufacturers must present data proving that its emission related components will not fail in use at rates higher than the warranty reporting threshold and providing that exceeding the warranty thresholds would entitle the ARB to order recall or other corrective action on the grounds that the exceedance is a violation of the test procedures. This would make it clear that since violating the warranty reporting threshold would constitute a violation of the test procedures it would be grounds for ordering a recall or other corrective action.

[3] See: section 1961(d) and the "California Exhaust Emission Standards And Test Procedures For 2001 And Subsequent Model Passenger Cars, Light-Duty Trucks And Medium-Duty Vehicles," section 1956.8(b) and the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines," section 1956.8(c) and the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles," section 1976(c) and the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and section 1978(b) and the incorporated "California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles.

B. Specific Changes

1. Proof of Violations

Staff is proposing to establish that a violation exists and corrective action is triggered when the valid component failure rate exceeds four percent as based on a manufacturer's EWIR reports. The corrective action, whether an extended warranty or recall, will be determined by whether or not the component is an exhaust after-treatment device and/or is OBD monitored as listed in the corrective action section below. Thus, the current proposal would clarify that a demonstration that the emissions on average for the entire group exceed an emission standard is not required to take corrective action.

As mentioned previously, Health and Safety Code Section 43106 requires manufacturers to produce a vehicle or engine that is "all materials respects, substantially the same in construction as the [certification] test motor vehicle or engine...". Below is an excerpt from the California Passenger cars, Light-Duty Trucks, and Medium-Duty Vehicles test procedures which incorporates by references Title 40, Code of Federal Regulations (CFR), §86.1823-01(e). This section lays out requirements for the vehicle's, and in this section particularly the emission component's durability requirements.

> §86.1823-01 (e) *Emission component durability*. The manufacturer shall use good engineering judgment to determine that all emission-related components are designed to operate properly for the full useful life of the vehicles in actual use.

When a significant number of emission-related components fail in customer service, this is evidence that production vehicles do not satisfy this requirement since a component, which did not fail during certification testing, is now failing at an unacceptable rate within the vehicle's useful life. The ARB believes that the failure of emission-related components is a unique situation and cannot be held to a typical in-use noncompliance decision by simply averaging emission exceedances over the useful life.

Using the authority cited in H & S Code Sections 43105 and 43106, the intent of the adopted emission warranty and recall regulations, and the intent of the emission certification test procedures, it is clear that ARB must ensure the durability of the emission control systems, at minimum, for the full useful life of the vehicles and engines. Therefore to make clear the link between the warranty regulations and the test procedures, staff is proposing adding language to the test procedures that states when in-use warranty reporting indicates a systemic defect exceeding four percent it constitutes a violation of the test procedures, e.g., for light duty vehicles:

§86.1823-01 October 6, 2000. Amend as follows: Add the following sentence to the first paragraph: Beginning with 2010 model-year vehicles or engines, at the time of certification manufacturers shall demonstrate that the emission control devices on their vehicles or engines will not exceed a valid failure rate of four percent or 50 claims, whichever is greater, in an engine family, test group or subgroup over the useful life of the vehicles or engines they are installed in. If any emission control device fails at this rate, that constitutes a violation of these test procedures and it entitles the Executive Officer of the Air Resources Board to require that the vehicles or engines they are installed in be recalled or subjected to corrective action as set forth in title 13 CCR, Division 3, Chapter 2, Article 5, sections 2166 through 2174,

Staff believes adding the requirement in the test procedures will ensure the manufacturer understands its obligations during the certification process to accurately represent the durability of emission control components.

2. Corrective Action

Manufacturers will continue to be required to perform corrective action for identifiable emission-related component defects. The staff expects that recall will be required in a number of situations, such as when it is determined that an exhaust after-treatment device or OBD computer has a systemic defect. Exhaust after-treatment devices are of critical importance in maintaining the lowest possible emission levels and they are monitored by the OBD system. When the OBD system detects an exhaust after-treatment device conversion efficiency problem and the MIL is illuminated, an exceedance of the emissions standards is present at 1.75 times. However, as exhibited in the DCC scenarios, the excess emissions can be very high even before the OBD MIL is illuminated. The on-board computer also plays a critical role in the operation of many emissions control systems, including the OBD system.

The staff expects that the principle corrective action in many situations will be extended warranty coverage. The ARB will allow manufacturers to extend warranties to address defects. With today's technology, the OBD system can detect an emission-related component defect and therefore alert owners to the problem. Regardless of the type of corrective action, any replacement parts must be of improved quality and durability to ensure that the corrective action effort adequately addresses the problem.

While the staff believes that any extension to the emission warranty period to adequately address a systemic defect emission-control component should be equivalent to the entire on-road life of all affected vehicles, it is necessary and reasonable to limit the manufacturers' responsibility. Therefore, staff is proposing that the extension to the emission warranty period for

passenger cars, light- and medium-duty vehicles will be limited to 15 years or 150,000 miles, whichever first occurs. This is equivalent to the emissions warranty period that manufacturers currently utilize for partial zero-emission vehicles (PZEV) and staff believes that manufacturers already design emission-control components to operate effectively for that period of time and mileage. Heavy-duty vehicles and engines used in such vehicles that are determined to contain systemic defects will be required to extend the warranty to 10 years, 200,000 miles, or 6,000 hours, whichever first occurs.

The proposed amendments would make it clear that manufacturers may request hearings when recalls are ordered, and that the record would be limited to the information generated in the emissions warranty reports and any other information required by the Executive Officer up to the date of the recall order. Consistent with statute, under the staff's proposal hearings would not be available when other types of corrective action besides recall are ordered, but parties would retain all rights to challenge such orders in court.

3. Reporting Changes

EWIR Changes

Staff has determined that quarterly EWIR submissions, while helpful for determining trends for certain emission-control component failures, are not absolutely necessary for the effective administration of the EWIR program. Staff also believes that the requirement to submit an EWIR at one percent or 25 claims (whichever is greater) is excessive since many of these components have been shown to never reach a valid four percent failure rate and trigger the consideration for corrective action. In fact, of some 3,700 emission-control components in EWIRs submitted each quarter, only about 32 percent or 1,200 components have reached the four percent trigger level. The staff proposes the following amendments to the EWIR provisions.

- Beginning with the 2010 model-year vehicles or engines, manufacturers shall file an EWIR on an annual basis when the cumulative number of unscreened warranty claims for a specific emission-related component replacement or repair represents at least four percent or 50 claims (whichever is greater) of the vehicles or engines of a California–certified engine family or test group.
- When the cumulative number of unscreened warranty claims for a specific emission-related component replacement or repair represents at least ten percent or 100 claims (whichever is greater) of the vehicles or engines of a California–certified engine family or test group, the manufacturer shall determine if a valid four percent or 50 defects exists. The manufacturer shall include these findings as a supplemental EWIR (SEWIR) report or may elect to proceed immediately to corrective action. The SEWIR will be required quarterly

until such time as the ARB determines the report or corrective action is not necessary for that component. If the SEWIR indicates that the systemic defect is less than a valid four percent failure rate, the manufacturer must continue to monitor their data and file a SEWIR on a quarterly basis. This cycle will continue until corrective action is taken, until warranty reporting is no longer required, or the ARB waives the reporting requirement.

FIR Changes

The proposed amendments will eliminate the need for an FIR report for the warranty reporting process.

EIR Changes

The proposed amendments will eliminate the need for an EIR report for the warranty reporting process.

Shown below is a chart comparing the current regulations with the proposed regulations based on actual warranty reporting data taken from 2001-2002 model-year warranty reports.

Figure 2- Current vs Proposed Reporting Requirements Based on 2001-2002 MY Data

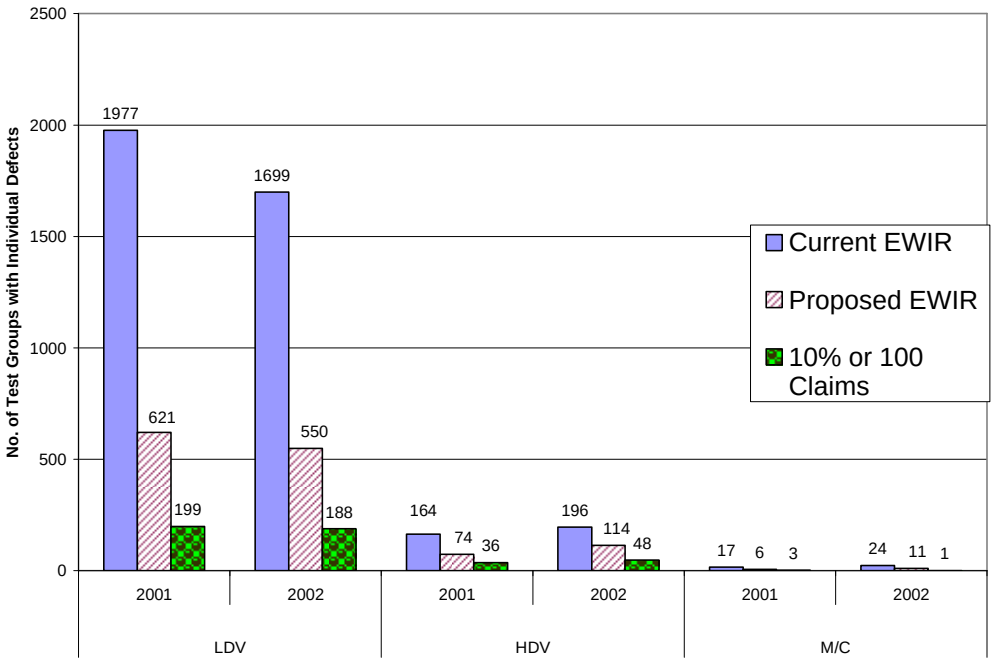


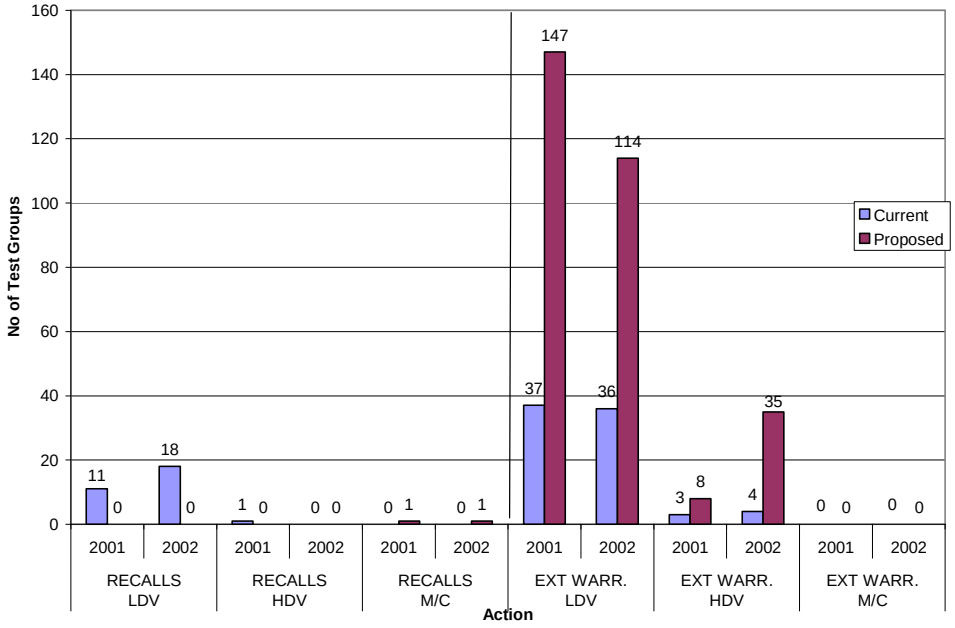
Figure 2 illustrates the amount of reporting that has occurred under the current regulation by vehicle category, and how this may change if the proposed regulation is adopted. Notable is the large number of EWIRs (reports indicating the warranty rate has exceeded one percent) resulting from the current regulations, and the much smaller number of cases where unscreened warranty rates exceed four percent. By increasing the threshold for initial reporting from one percent to four percent, the proposed regulations will reduce the average number of EWIRs by about 66 percent.

Under the new proposal, the validation of unscreened warranty claims will not be required until the EWIR rate reaches ten percent. Unscreened warranty claim rates that are ten percent or greater nearly always result in a valid four percent failure level, and this triggers the process of determining appropriate corrective action. Once the EWIR is filed, the manufacturers must continue to monitor their warranty data on a quarterly basis. When the unscreened claim rate reaches ten percent or 100 claims (whichever is greater), the manufacturer shall provide corrective action for the defective component or provide a SEWIR if the defect rate has not reached a valid four percent failure level.

4. Summary of Changes

Figure 3 shows how the proposed regulations would have affected corrective actions for the 2001-2002 model year vehicles by vehicle category had they been in place at that time:

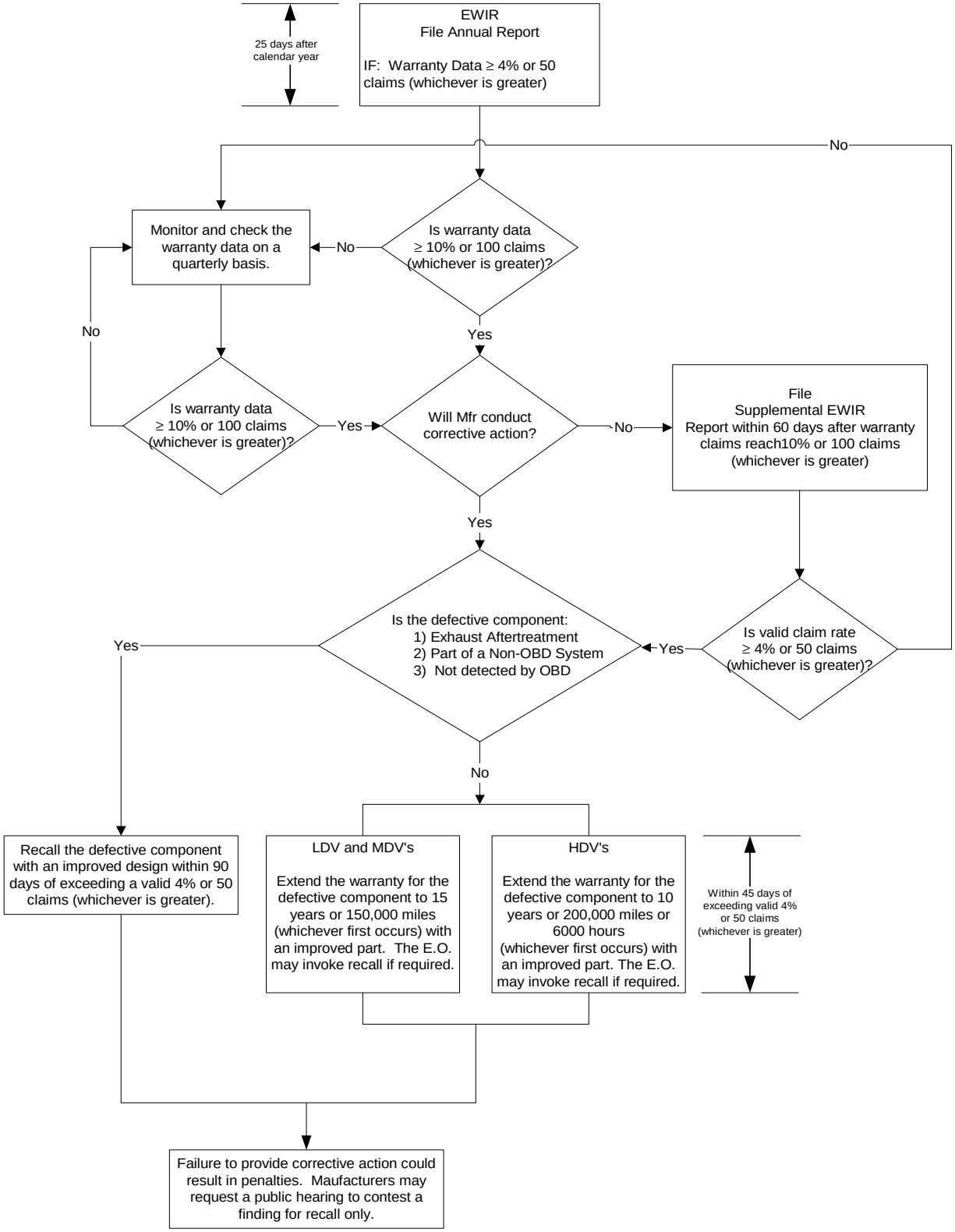
Figure 3 - Current vs Proposed Corrective Action Based on 2001-2002 MY Warranty Data



Overall, the number of recall actions would have been reduced by over 93 percent because most of the parts reported to be defective did not involve exhaust after-treatment devices. The number of extended warranties would probably triple, replacing most recalls and causing corrective action for components manufacturers argued would not cause emission exceedances, on average.

Staff's proposed flow of reporting changes and corrective action requirements are shown in Figure 4.

Figure 4
Proposed Warranty Reporting and Corrective Action Requirements



VII. Issues of Controversy

A. Legal Authority

Staff expects most of the controversy to center around the Board's authority to require the corrective actions outlined in this proposal for components that do not cause an exceedance of emission standards on average. Staff believes that there is ample legal authority to support the proposal, as discussed in Sections V and VI, above. As we saw in the DCC and Toyota cases, while staff believed that there were emission impacts from the defects, since the ARB did not have the resources to tie the defects to the current emission exceedance requirement, it could not require that the defects be corrected, which left many vehicles in-use today with excess emissions. Industry's position is that staff's proposal actually creates a level of consumer protection of which the ARB has no authority to impose. Staff disagrees and believes that the proposed modifications would protect the integrity and intent of the certification and in-use programs and ultimately protect the emission benefits expected from the new vehicle and engine standards.

Extended warranties are also an expected area of controversy. Health and Safety Code sections 43204-43205.5 basically provide that manufacturers must warrant that the vehicles they manufacture are "designed, built and equipped so as to conform, at the time of sale, with the applicable emission standards" and "free from defects in materials and workmanship" which cause them to "fail to conform with applicable emission standards" for their useful lives. Clearly, if it were basing its proposal solely on these provisions, ARB would not have authority to require that manufacturers extend warranties on failing emissions related parts beyond the useful lives of the vehicles they are found in. The reason is simple—because these provisions do not authorize warranty coverage beyond the periods prescribed in the statutes.

The inquiry does not end there, however. Health and Safety Code section 43105 prohibits manufacturers from selling vehicles in California "if the manufacturer has violated emission standards or test procedures *and has failed to take corrective action, which may include recall of vehicles or engines, specified by the state board in accordance with regulations of the state board*." Emphasis supplied. This means that in the case of violations of the test procedures or emission standards the ARB may require by regulation other kinds of relief in the form of corrective action, not just recall. Furthermore, the Health and Safety Code does not define or limit the term "corrective action". This, coupled with the fact that Health and Safety Code section 43105 provides that in the case of violations of the test procedures or the emission standards the ARB has wide discretion ("The procedures for determining, and the facts constituting, compliance or failure of compliance shall be established by the state board.") indicate that ARB does have the authority to require that warranties on failing emissions related part must be extended beyond the

useful lives of the vehicles they are installed in. Extended warranties for failing emission control components is simply one type of corrective action, one made particularly effective because of the ability of OBD systems to detect malfunctions and warn owners to seek repairs. Again, the authority for doing this is not located in Health and Safety Code sections 43204-43205.5 which provide the authority for requiring the basic emissions warranty, but in Health and Safety Code section 43105 that provides the ARB with wide discretion to require recalls or other corrective action in the event of violations of emission standards or test procedures.

Under the proposed regulations, warranty extensions would be required where component failures exceeded the warranty reporting threshold, linked to the test procedures, entitling the ARB to order corrective action, in this case an extended warranty. It is also notable that Health and Safety Code sections 43204-43205.5 do not place any limitations, explicit or otherwise, on ARB's authority to order corrective action under Health and Safety Code section 43105. Similarly, given ARB's wide discretion in this area, there is no legal impediment to requiring manufacturers to recall the affected vehicles or provide extended warranties for them. One factual rationale for doing this is similar to the one advanced in the OBD recall rulemaking—that projecting failure rates and future emission of failing components is highly speculative, but it is certain that emissions components fail more frequently as they age. When OBD systems detect these future failures of components that have systemically failed during the vehicles' useful lives, they should be remedied, either by recall or other corrective action such as extended warranty.

B. Independent Service Facilities Warranty Station Designation

The independent service and repair industry and aftermarket parts manufacturers' associations have requested that the proposed amendments include the provision that would allow their members to apply and be qualified as "warranty repair stations" as defined in title 13, CCR, Section 2035. The proposed amendments should not have an impact on the independent service and repair industry and aftermarket parts manufacturers since the proposal deals with relatively new vehicles and engines that are most commonly serviced at new car dealerships. The proposed recall and/or extended warranty requirements are strategies utilized by the ARB for many years. Only those emission-control components that are determined to be systemic defects, and corrective action is the vehicle or engine manufacturer's responsibility, would be affected. Staff feels the amount or work redirected from independent facilities will be minimal and therefore does not warrant the regulatory change.

VIII. Air Quality, Environmental, and Economic Impacts

The proposed amendments will have a positive impact on air quality by ensuring that California-certified vehicles or engines that have been identified to contain systemic emission-control components defects are subjected to effective corrective action. Through improved reporting, failure analysis, and effective emission repair work, the amendments will help ensure that the emission benefits attributed to California's stringent exhaust and evaporative emission standards will be fully realized in-use.

A. Environmental Justice

State law defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Senate Bill 115, Solis; Stats 1999, Ch. 690; Government Code § 65040.12(c)). The Board has established a framework for incorporating environmental justice into the ARB's programs consistent with the directives of State law. The policies developed apply to all communities in California, but recognize that environmental justice issues have been raised more in the context of low income and minority communities, which sometimes experience higher exposures to some pollutants as a result of the cumulative impacts of air pollution from multiple mobile, commercial, industrial, areawide, and other sources.

Over the past twenty years, the ARB, local air districts, and federal air pollution control programs have made substantial progress towards improving the air quality in California. However, some communities continue to experience higher exposures than others as a result of the cumulative impacts of air pollution from multiple mobile and stationary sources and thus may suffer a disproportionate level of adverse health effects.

The emission reductions resulting from adoption of the proposed regulatory revisions will potentially affect all vehicles, and thus emission reductions will occur statewide. To the extent that communities have a disproportionate population of older cars, the benefit of the extended warranty may provide relatively greater air quality benefit to these communities.

B. Economic Impacts

The Administrative Procedures Act requires that, in proposing to adopt or amend any administrative regulation, state agencies shall assess the potential for adverse economic impacts on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states, and fiscal impacts on state and local agencies. Below is staff's assessment of the economic impacts of this proposal.

C. Cost to State Agencies

The implementation of these regulations in 2010 is expected to result in additional corrective actions compared to the current regulations. If overall reliability of components does not improve compared to today, it will require up to two additional ARB staff to ensure proper corrective actions are taken at a cost to the ARB of approximately $200,000 per year.

The proposed amendments are not expected to create additional costs to any other state agency, local district, or school district, including any federally funded state agency or program.

D. Costs to Engine and Motor Vehicle Manufacturers

The businesses to which the proposed requirements are addressed and for which compliance would be required are manufacturers of California motor vehicles. There are presently 34 domestic and foreign corporations that manufacture California-certified passenger cars, light-duty trucks, and medium-duty gasoline and diesel fueled vehicles that would be subject to the proposed amendments. Only one motor vehicle manufacturing plant (NUMMI) is located in California. For motor vehicle manufacturers to comply with the proposed regulatory action, the costs are expected to be negligible. Moreover, manufacturers are expected to comply with all applicable laws. For manufacturers that continue to produce vehicles or engines with defective components, recall and/or warranty costs will increase. The amount cannot be quantified at this time. Manufacturers will experience some savings in decreased warranty reporting costs.

E. Potential Impacts on Other Businesses

The proposed amendments should have minimal impact on the independent service and repair industry and aftermarket parts manufacturers since the proposal deals with relatively new vehicles and engines that are still within their certified useful life period. The proposed recall and/or extended warranty requirements are strategies utilized by the ARB for many years. Only those emission-control components that are determined to have systemic defects would be affected by the extended warranty.

F. Potential Impact on Business Competitiveness

The proposed amendments are expected to have no effect on the ability of California businesses to compete with businesses in other states.

G. Potential Impact on Employment

Staff does not believe the regulatory proposal would result in the loss of jobs. It may create additional jobs in California, based on the need to perform the additional recall or extended warranty work.

H. Regulatory Alternatives

One regulatory alternative would be to not adopt the proposed amendments. Staff believes that this would be unacceptable. The current status of the regulations has allowed several obvious violations of the intentions of the in use regulations as well as the certification test procedures and likely resulted in increased emissions, such as the DCC and Toyota cases. This approach of status quo would not strengthen and make clear the ARB's authority to ensure complying and durable emission control systems that ultimately meet the State's emissions goals. Staff does not consider this a viable option to protect the State's air quality benefits expected from the on road emission regulations.

Staff has determined that no feasible alternative considered would be more effective in carrying out the purpose of the proposed amendments. No alternative would be as effective as or less burdensome to affected private persons than the proposed amendments to the regulations.

IX. Summary and Staff Recommendation

California has enacted some of the most stringent emission requirements for passenger cars, light- and medium-duty vehicles, heavy-duty vehicles and engines used in such vehicles, and motorcycles. Without the assurance that those vehicles or engines will be equipped with emission-control components that are both effective and durable for the certified useful life periods, the envisioned health benefits to Californians will not be fully realized.

Systemic defects involving emission-control components are routinely identified on relatively new vehicles sold in California each year. The current regulations whose objective is to implement corrective action for failing components are not doing the job they were designed to do. Therefore, staff has developed proposed revisions to these regulations that would result in more defective emission-control components being repaired or replaced. The proposed revisions will also reduce the amount of reporting required of vehicle and engine manufacturers. Staff recommends the Board adopt the proposed amendments to California's emission warranty information reporting and recall regulations and test procedures.

References

1) Staff Report: Initial Statement of Reasons (ISOR) for the Proposed Rulemaking – Public Hearing to Consider Amendments to the Regulations Concerning Reporting Failures of Emissions-Related Components, In-Use Vehicle Recall, In-Use Vehicle Enforcement Test and Certification Test Procedures Applicable to Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, Heavy-Duty Vehicles, Motorcycles and Modifier-Certified New Motor Vehicles. September 8, 1988.

2) Supplemental Staff Report: Continuation of Public Hearing to Consider Amendments to the Regulations Concerning Reporting Failures of Emissions-Related Components, In-Use Vehicle Recall, In-Use Vehicle Enforcement Test and Certification Test Procedures Applicable to Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, Heavy-Duty Vehicles, Motorcycles and Modifier-Certified New Motor Vehicles. November 18, 1988.

3) Staff Report: Initial Statement of Reasons (ISOR): Technical Status and Revisions to Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines (OBD II), March 8, 2002.

4) Settlement Agreement, Daimler-Chrysler Corporation/Air Resources Board, April 8, 2005.

5) Office of Administrative Law Decision, Case Number 519, Toyota Motor Corporation/Air Resources Board, February 22, 2002.

6) 2006 Edition of the California Air Pollution Control Laws

7) California Code of Regulations (CCR), Title 13, Sections 1956.8, 1958, 1961, 1976 and 1977. Sections 2112, 2123 and 2141-2149.

8) ARB Emission Warranty System Database.

9) Staff Excel File: “ARB Chrysler Testing Data.xls” dated 8/11/04.

Appendix A.
Proposed Regulations Changes

Appendix B.
Emission Test Procedures Changes