

FINAL STATEMENT OF REASONS

ADOPTION OF AMENDMENTS TO THE VERIFICATION PROCEDURE, WARRANTY AND IN-USE COMPLIANCE REQUIREMENTS FOR IN-USE STRATEGIES TO CONTROL EMISSIONS FROM DIESEL ENGINES

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State of California
AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Responses**

**PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE VERIFICATION
PROCEDURE, WARRANTY AND IN-USE COMPLIANCE REQUIREMENTS FOR IN-
USE STRATEGIES TO CONTROL EMISSIONS FROM DIESEL ENGINES**

Public Hearing Dates: December 11, 2003
February 26, 2004
Agenda Item No.: 03-10-3

I. INTRODUCTION AND BACKGROUND

In 1998, the Air Resources Board (ARB or Board) identified diesel particulate matter (PM) as a toxic air contaminant (Title 17 California Code of Regulations (CCR) section 9300) following a ten-year review process. A toxic air contaminant is an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. Many toxic air contaminants are volatile and are found primarily in the atmosphere as gases, but some are atmospheric particles or liquid droplets. Diesel PM is of particular concern because of its prevalence in California.

The amount of diesel PM emitted into California's air and the potential cancer risk it poses make diesel PM the most harmful toxic air contaminant in the state. To address this significant health concern, the ARB adopted the Diesel Risk Reduction Plan (DRRP) in 2000, which outlines possible control measures to reduce diesel PM. Several proposals in the DRRP involve using diesel emission control strategies with the existing fleet, which consists of diesel vehicles and equipment in on-road, off-road, and stationary applications. Before a diesel emission control strategy may be used to satisfy a proposed regulatory requirement, ARB must first determine if it can effectively reduce emissions.

To identify strategies that provide real and durable reductions in diesel PM emissions, as well as oxides of nitrogen (NOx), ARB staff developed the Verification Procedure, Warranty, and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (the Procedure, 13 CCR section 2701, et seq.). The primary function of the Procedure is to support the DRRP, but in light of California's persistent ozone problem, it is also used to evaluate technologies for reducing NOx emissions. The Procedure was adopted by the Board at the May 16, 2002, public hearing.

Staff use the Procedure to verify emissions reductions from a wide range of control strategies used with on-road, off-road, and stationary applications. Strategies that involve diesel particulate filters, diesel oxidation catalysts, alternative diesel fuels and fuel additives, for example, are all evaluated under the Procedure. In addition to standard emissions testing, the Procedure also has durability and warranty requirements which help to ensure that verified systems will perform as they should over time, and not simply when new. The in-use compliance testing requirements will allow ARB staff to confirm that the performance of production units is consistent with the levels they were verified to.

This rulemaking was initiated by the publication on October 24, 2003, of a notice of public hearing to consider amendments to the Procedure. The Initial Statement of Reasons for the rulemaking (Staff Report), entitled "Proposed Amendments to the Verification Procedure for In-use Strategies to Control Emissions from Diesel Engines," was also released on October 24, 2003, and was made available to the public upon request as required by Government Code §11346.2.

At the public hearing held on December 11, 2003, the Board considered the proposed amendments and received written and oral comments from interested stakeholders. However, the Board delayed final action on the regulations in consideration of Executive Order S-2-03, which required all agencies to reassess the regulatory impact on business of any proposed regulation. The Board directed staff to continue working with stakeholders in the interim. As a result of the continued dialogue with stakeholders, staff modified its proposed amendments, in particular those that related to the Procedure's warranty requirements.

The modified amendments were presented by staff at the Board's February 26, 2004, public hearing. At the conclusion of the hearing, the Board approved the regulatory language with the modifications described. Further, in accordance with section 11346.8 of the Government Code, the Board in Resolution 03-38 directed the Executive Office to make the text of the modified amendments available to the public for a supplemental written comment period of 15 days. The Executive Officer was then directed to adopt the proposed amendments to the Procedure with additional modifications and clarifications as may be appropriate in light of the comments received.

The text of the Board-approved modifications with the modified text clearly indicated, was made available for a supplemental 15-day comment period in a "Notice of Public Availability of Modified Text" issued on April 8, 2004. Several written comments were received during the 15-day comment period.

A complete description of the proposed regulatory action and its rationale are contained in the Staff Report and the Notice of Modified Text. These documents are incorporated herein by reference. This Final Statement of Reasons (FSOR) updates the Staff Report by identifying and explaining the modifications made to the text of the originally proposed regulatory language. The FSOR also contains a summary of the comments

the Board received on the proposed regulatory action during the formal rulemaking process and ARB's responses to those comments.

Economic and Fiscal Impacts. In developing the amendments to the Procedure, ARB staff evaluated the potential economic impacts on private persons and businesses. The Board has determined that the proposed regulatory action will not create costs or savings, as defined in Government Code section 11346.5(a)(5) and (6), to any state agency or in federal funding to the state, costs or mandate to any local agency or school district whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code, or other non-discretionary savings to local agencies.

The Board's Executive Officer has also determined that pursuant to Government Code section 11346.5(a)(3)(B) the regulations will not affect small business. Therefore, in accord with Government Code section 11346.9(a)(5) no alternatives that would lessen the adverse economic impact on small businesses were considered.

The Board has also determined that the proposed regulatory action will not have a significant adverse economic impact on businesses, including the ability of California businesses to compete with businesses in other states, except as noted below.

The Procedure is a purely voluntary protocol for the evaluation of diesel emission control technologies, and the proposed amendments do not change this basic fact. Presumably, a business would use the Procedure only if the business believed it would be financially advantageous to do so. Thus, there are no mandated costs to equipment manufacturers. Costs are incurred only if parties choose to participate in the Procedure. Those costs include research and development costs, marketing costs, and costs associated with the testing necessary to comply with the requirements of the Procedure.

It must be noted that neither the Procedure nor the proposed amendments impose any requirements on end-users. If and when other regulations require the use of diesel emission control strategies, costs to end-users would include the purchase price of the control strategies and maintenance costs. Those costs will vary by market segment and will be addressed in detail as ARB staff prepares the individual control measures.

The proposed amendments would have no significant impact on the ability of California's businesses to compete with businesses in other states. The Procedure applies to all businesses that manufacture or market diesel emission control technologies and voluntarily elect to participate, regardless of their location.

Finally, the Board has determined that this regulatory action will not create costs or savings, as defined in Government Code section 11346.5 (a)(6), to any State agency or in federal funding to the State, costs or mandate to any local agency or school district whether or not reimbursable by the State pursuant to Part 7 (commencing with section 17500, Division 4, Title 2 of the Government Code), or other non-discretionary savings to local agencies. The regulations apply only to diesel emission control manufacturers

who elect to participate in the program. Therefore, no state agency, local agency, or school districts will incur costs in reasonable compliance with this regulation.

Consideration of Alternatives. For the reasons set forth in the Staff Report, staff's comments and responses at the hearing, and this Final Statement of Reasons, the Board has determined that no alternative considered by the agency, or that has otherwise been identified and brought to the attention of the agency, would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective or less burdensome to affected private persons than the action taken by the Board.

II. SUMMARY OF COMMENTS AND AGENCY RESPONSES

At the December 11, 2003, hearing, oral testimony was received from:

Stephanie Williams* – California Trucking Association (CTA)
Jay McKeeman* – California Independent Oil Marketers Association (CIOMA)
Joseph Kubsh* – Manufacturers of Emission Controls Association (MECA)
Albert McWilliams* – Engelhard Corporation
Julian Imes* – Donaldson Company, Inc.
Marty Lassen – Johnson Matthey
Brad Edgar* – Cleaire
Dean Saito* – South Coast Air Quality Management District (SCAQMD)
Diane Bailey* – Natural Resources Defense Council (NRDC)
Kathryn Phillips* – Center for Energy Efficiency and Renewable Technologies (CEERT)
Gretchen Knudsen – International Truck and Engine Corporation
Tim McRae* – Planning and Conservation League (PCL)

At the February 26, 2004, hearing, oral testimony was received from:

Staci Heaton – CTA
Bruce Bertelsen* – MECA
Kevin Hallstrom – Engelhard Corporation
Marty Lassen* – Johnson Matthey
Kimberley Jones* – Lubrizol
Tom Swenson* – Cleaire
Julian Imes* – Donaldson Company, Inc.
Sean Edgar* – California Refuse Removal Council (CRRC)

Those names listed above with asterisks also submitted written comments. The written submissions were comments on the proposed amendments and were received within the comment period. Over half of the oral testimony supported or was neutral towards the proposal. MECA and the environmental organizations were in favor of the proposal, while CTA, CIOMA, and CRRC opposed portions of the proposal. Comments are addressed below.

Additional written comments were received from:

James Valentine – Clean Diesel Technologies (CDT)
Stanley Lewis - Boerner Truck Center
Todd Campbell – Coalition for Clean Air
Bonnie Holmes-Gen – American Lung Association of California
V. John White – Sierra Club
Don Anair – Union of Concerned Scientists (UCS)
Karen Orehowsky – United States Environmental Protection Agency (U.S. EPA)
Mayor Alan Autry – City of Fresno

Below is a summary of each objection or recommendation made regarding the proposed regulatory actions, together with an explanation of how the proposed action was changed to accommodate each objection or recommendation, or of the reasons for making no change. The comments have been grouped by topic wherever possible. Comments not involving objections or recommendations specifically directed towards the rulemaking or to the procedures followed by ARB in this rulemaking are not summarized below. Additionally, any other referenced documents are not summarized below.

A. Proposed Verification Testing Protocol

1. Comment: [We] agree with staff that a diesel emission control strategy needs to be based on sound principles of science and engineering and agree that an adequate demonstration of this is essential. (MECA, Lubrizol)
2. Comment: We believe that it is absolutely necessary that the applicant demonstrate that its products rely on sound principles of science and engineering to achieve meaningful emissions reductions and that the Executive Officer should retain the right to require an applicant to provide further evidence to demonstrate the effectiveness of its product. (Coalition for Clean Air, American Lung Association of California, CEERT, NRDC, PCL, Sierra Club, UCS)

Agency Response: Staff agrees with these comments.

B. Harmonization of Durability Requirements

3. Comment: MECA strongly supports ARB's efforts to harmonize verification requirements with the U.S. EPA Voluntary Diesel Retrofit Program. (MECA)
4. Comment: Lubrizol supports ARB's efforts to harmonize verification requirements, and reciprocity where possible, with the U.S. EPA Voluntary Diesel Retrofit Program. (Lubrizol)

5. Comment: CDT strongly supports the proposed Harmonization of Durability Requirements between CARB and the U.S. EPA Voluntary Diesel Retrofit Program. (CDT)
6. Comment: We support the harmonization of the durability requirements with US EPA's program as this will hopefully cut down costs to manufacturers allowing them to allocate more funds to research and development for improved products in the future. (Coalition for Clean Air, American Lung Association of California, CEERT, NRDC, PCL, Sierra Club, UCS)

Agency Response: Staff agrees with these comments.

C. Nitrogen Dioxide (NO₂)Limit

7. Comment: I just want to point out NO₂, which our Board has not taken a position on the NO₂ issue, but this was a rule that was an ozone measure for NO_x that went to a lawsuit that was negotiated that became the PM measure. Now it's the PM that's going to increase NO_x. (CTA)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment. The Verification Procedure was developed as part of the Diesel Risk Reduction Plan and has always had control of PM as its primary focus. Furthermore, the commenter is mistaken; diesel emission control technologies that employ platinum catalysts do not increase total NO_x emissions, but rather the proportion of NO₂ in the mix of species that make up NO_x.

8. Comment: MECA strongly supports postponing a NO₂ emission limit from January 1, 2004 to January 1, 2007. This will not only give our members more time to develop products to address this issue, but also provide all parties additional time to better understand this complex issue and to define appropriate limits. Although manufacturers continue to develop catalyst formulations and systems to minimize the production of NO₂, the current requirements in section 2706, which include engine out NO₂ emissions, largely takes meeting the current requirement outside of the retrofit technology manufacturer's control and therefore impedes progress towards meeting it. Delaying this requirement will have little, if any, adverse impact on California's air quality and will allow the continued introduction of diesel emission control strategies and provide the associated air quality benefits to the citizens of California while the issue is being fully understood. We welcome the opportunity to work with ARB to investigate baseline engine-out NO₂ emissions, market penetration rates of control strategies that can produce NO₂, the technological extent to which catalyst-based strategies can be made to minimize NO₂ formation, methods to minimize test to test variations and appropriate test methods, and other items associated with this very complex issue. (MECA)

9. Comment: Lubrizol supports the postponement of the NO₂ emission limit from January 1, 2004 to January 1, 2007. We agree with staff that additional time is required to better understand this complex issue and to define an appropriate NO₂ limit definition and measurement protocols. This issue is complex as it involves a specific emission, which is unregulated for new engine emissions limits, thus, there is little conclusive information from which to base requirements. Lubrizol continues to develop, demonstrate and pursue verification of technology options which minimize or have no effect on NO₂ emissions. (Lubrizol)

Agency Response: Staff agrees with these comments.

10. Comment: The extension should be provided only until January 1, 2005. AQMD believes that a year's extension is sufficient time for CARB to reevaluate the 20 percent limit and to determine if diesel particulate filter (DPF) manufacturers have the technology to meet this limit. (SCAQMD)

Agency Response: Staff disagrees with this comment. Staff does not believe that one year is sufficient to reevaluate the limit and assess industry's ability to meet it. As described in the Staff Report and observed by MECA and Lubrizol in their comments above (Comments 8 and 9), defining an appropriate NO₂ limit is a complex task. As stated in the Staff Report (p.16, section 4.2.1), the variability in a DPF's ability to meet a given limit on one engine versus another is not well understood. Historically, NO₂ has not been measured from diesel engines except for certain mining applications. One of the few existing studies that measured NO₂ (see Staff Report, p.16-17) showed that one DPF design had NO₂ fractions ranging from 19 to 65 percent depending on the test cycle and engine.

Another issue concerns an engine's own NO₂ emissions. The limited data available suggest that most engines' NO_x emissions consist of 5 to 10 percent NO₂, but there are some engines that exceed 20 percent (see Staff Report, p.16 and 18, section 4.2.2). Any limit on NO₂ will need to be able to reconcile this variability. A one-year extension of the existing NO₂ limit would give staff and industry at most nine months to resolve these issues. For the reasons discussed above, staff does not believe that a meaningful resolution of this issue can be made in such a limited timeframe.

11. Comment: In the interim period from January 1, 2004 through January 1, 2005, a limit should be placed on the NO₂ fraction in the total baseline NO_x emissions associated with the use of DPFs. This limit should be determined based on test results for DPFs that have been verified or are in the process of being verified. (SCAQMD)

Agency Response: Staff disagrees with this comment. Staff does not believe that an interim limit is necessary. Implementation of diesel emission control technologies will not ramp up significantly until the 2007 to 2009 timeframe (see Staff Report, p.19, section 4.2.5). As a result, staff expects no significant near-term health effects associated with elevated NO₂ emissions. Furthermore, setting an interim limit would

cause the same problems noted above (Comments 8 and 9, response to Comment 11, which are incorporated by reference here) with regards to lack of time, and would divert resources from finding a long-term solution.

12. Comment: We conditionally support the amendment of the effective date to January 1, 2007. If the ARB extends the NO₂ effective date, ARB must also require that each manufacturer submit an annual progress report on their product research and development to ARB and ARB must commit to the January 1, 2007 effective date, prohibiting any further rollback of the NO₂ post-control emissions goal. (Coalition for Clean Air, American Lung Association of California, CEERT, NRDC, PCL, Sierra Club, UCS)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff agrees with most of this comment and disagrees with it in part. Instead of requiring manufacturers to submit an annual progress report, staff has formed a working group to explore all of the technical and health effects issues associated with regulating NO₂. MECA is actively participating in the working group and its members are providing ARB with updates on their technology development. The NO₂ working group also includes representatives from the groups making the comment, and will report to the International Diesel Retrofit Advisory Committee (IDRAC). Regarding the January 1, 2007, effective date, staff does not foresee making any further rollbacks because implementation of diesel emission control systems are proposed to will ramp up significantly in the 2007-2009 timeframe (as noted in the response to Comment 11).

13. Comment: We're concerned about the NO₂ requirements and the delay of those requirements. We would urge staff to look into the health impacts, the very severe health impacts that we detailed in our comment letter of NO₂, especially the emerging research that's coming out and linking NO₂ with lung cancer and pay attention to those impacts. Do the research and make it more of a priority. I think that is the second draft meeting in a row that the issue came up with near source NO₂ impacts, and the response has been that the staff is looking at it. We would just urge that priority be elevated. (NRDC)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. In response to this testimony at the December hearing, the Board reassured NRDC that staff will give high priority to these issues. The NO₂ working group (mentioned in the response to Comment 12) is already investigating a number of worst-case exposure scenarios to better understand the potential for adverse health effects.

D. Warranty Requirements

14. Comment: [We] believe in general that details of providing product warranty should be left to the marketplace and their commercial activities. (MECA, Donaldson)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment. ARB has a long-standing history of requiring emissions-related warranties on vehicles it certifies as compliant with its emissions standards. Mandatory warranties on emissions control components protect consumers and guarantee that such components will function properly in use. Not only is it consistent to do the same with retrofits, but staff believes fundamentally that warranty protection for the consumer is necessary for successful implementation of the Diesel Risk Reduction Plan. Several other commenters (see Comments 32-35) have indicated that mandated warranty protection is essential for consumer acceptance of the proposed mandatory control of in-use emissions. Consumers will have limited choices regarding their participation in the marketplace for retrofit technologies proposed by the DRRP, and thus they may have reduced bargaining power to insist on adequate warranty protections. The minimum required warranty provides basic protections, but coverage beyond that minimum will indeed be subject to negotiations between the emission control system vendors and their customers.

15. Comment: If customers claim our product caused damages, we would prefer to handle such claims as a matter of customer relations, and not on account of a warranty. (Engelhard)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment. For the reasons noted in Comments 32-35 and the responses thereto, the staff believes that the lack of certainty for customers regarding how they would be treated in the event that a diesel emission control strategy failed would jeopardize the successful implementation of the DRRP (see also the response to Comment 14, which is incorporated by reference here).

16. Comment: Compliance to this amended warranty, which includes the engine, but not the vehicle or equipment should take effect immediately for all verified retrofit technologies. We do not support extended time for compliance to this amended warranty. We believe that any warranty compliance date extensions perpetuate an unfair warranty position and economic advantage for those with past verified technologies which are prior to the more recent ARB verification procedures. (Donaldson)

Agency Response: Staff agrees with this comment. Staff believes that there must be a level playing field for all verified technologies and will seek to have the amendments take effect at the earliest date possible. Because the modifications were overall a lessening of warranty requirements, all verified manufacturers will be given the opportunity to continue their verification with the lesser requirements immediately.

17. Comment: We encourage the Board to have staff continue to work with stakeholders on the warranty and arrive at a mutually acceptable solution. (Engelhard, Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff agrees with this comment. Board policy has always been to continue to work with stakeholders to resolve issues whenever possible. As noted in the response to Comment 45, discussions subsequent to the Board action did result in one of the commenters determining that it could accept the warranty terms, provided it could include standard commercial language limiting other warranties.

18. Comment: We have reviewed the proposed warranty requirements under consideration today and believe that they are fair and balanced for both providers and end users and support their adoption. However, we feel that it is not necessary to weaken those requirements having met the original warranty provisions. Owners and operators have a tremendous investment in their engines, vehicles and equipment and deserve a warranty that protects that investment. This is especially reasonable because they are being required to install and use these systems in most cases by regulation, not by choice. We believe that CARB should require warranties that make certain that end users are protected. (Cleaire)

Agency Response: Staff agrees with the comment.

19. Comment: We really appreciate staff's understanding about the necessity to have the engine warranty language included in the verification procedure. Something to note -- the way that our program works, we don't get to make a determination whether or not a retrofit device is appropriate on an engine. That is something that we work with our dealers and with our supplier to data log, to collect information, to determine if there are engine exhaust temperatures that are hot enough and if the duty cycle is appropriate. It is then up to the supplier to decide whether or not they feel comfortable installing that device on the vehicle. And I think given that fact that we have no control over whether or not vehicles can be retrofitted, it's really imperative that the suppliers have the liability. (International)

Agency Response: Staff agrees with the comment.

20. Comment: Consistent with standard industry practice, the warranty should cover the retrofit device alone. (Engelhard, Johnson Matthey, Donaldson)

Agency Response: Staff disagrees with this comment and incorporates its response to Comment 14 here. It is important to include the engine in the warranty requirement for retrofits because coverage of the engine is critical for consumer acceptance of the proposed diesel emission reduction requirements. Moreover, standard industry practice is not determinative here. The DRRP envisions a situation and a market that is not consistent with standard industry practice as it has

existed until now, because it proposed that particulate matter controls may be required in the future, whereas currently their use is voluntary. A mandatory warranty that includes coverage for engine damage is appropriate in the situation where controls may be mandated. Also, under the DRRP, the size of the retrofit market, and hence the profits to be made by emission control manufacturers, will be increased accordingly. This is a vastly different paradigm than one of an end-user voluntarily installing a retrofit device and also justifies a mandatory warranty requirement that includes coverage for damage to the engine. As indicated in Comments 32-35, end-users are concerned about having sufficient protection from devices that do not live up to expectations and support a mandatory warranty requirement that includes coverage for damage to the engine. In crafting the warranty requirement, staff has attempted to balance the needs of different constituents, including device manufacturers and end users. This balance has been recognized by other providers of retrofit devices such as Cleaire (see Comment 18, which is incorporated by reference here).

21. Comment: The U.S. EPA mandated a retrofit program to reduce diesel emissions from transit busses in 1993. The mandate required retrofit companies to provide a warranty on the retrofit device alone. We believe ARB should follow EPA's model and limit the warranty to device only and allow commercial terms outside of this to be negotiated between retrofit providers and users. (Johnson Matthey)

Agency Response: Staff disagrees with this comment and incorporates its responses to Comments 14 and 20 by reference here. The U.S. EPA mandatory retrofit program the commenter mentions does not provide adequate guidance for the current proposed amendments because the U. S. EPA program is much more limited in scope than the proposals envisioned by the DRRP. The U.S. EPA mandatory retrofit program applies to certain transit buses only; one type of application and only one type of regulated entity. The California DRRP program concerns a much broader variety of diesel applications: on-road, off-road, and stationary; in short, all of them. A much greater spectrum of retrofit technologies will be involved, from simple aftertreatment systems to more engine invasive strategies. If implemented, the DRRP program would regulate public and private fleets alike, not just transit agencies. As a result of the broader scope of California's plan and the additional variables involved (including end-user concerns voiced in Comments 32-35), staff believes that end-users will require a greater level of consumer protection than that in the U.S. EPA urban bus program. This warrants including warranty coverage for damage to the engine as well as the verified device.

22. Comment: There is a requirement for verifiers to provide progressive consequential warranty coverage for both the engine and the vehicle, although it has been proposed to limit it to engines. This as a regulated mandate is unprecedented. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff

disagrees with this comment and incorporates its responses to Comments 14, 20, 21, 25, 25 and 27 by reference here. As clearly stated in section 2707(a)(1)(C) of the Procedure, the required warranty only covers damage to an engine that is proximately caused by a verified retrofit.

23. Comment: The existing requirement to extend the warranty liability to engines as proposed is preventing us from offering this warranty coverage. In fact, the mandated warranty liability that extends to a level higher than the product we supply is a serious concern to Johnson Matthey and our ability to continue to participate in the CARB diesel retrofit program. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows and incorporates its responses to Comments 14 and 20 by reference here. Staff notes that discussions with the commenter subsequent to the Board's action lead the company to return to the California market (see Comment 45 and the response thereto, incorporated by reference here).

24. Comment: We have heard from other parties that because the ARB is mandating retrofits, they need to be fully protected. I would submit to you that what is being mandated is clean air. And with the current ARB best available control technology, or BACT policy, users have a choice. That choice includes replacement or repower first and then retrofit. And the least-costly choice, retrofit, contains the broadest warranty requirements. We believe with choice that the retrofit warranty should be limited to device only. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment and incorporates its responses to Comments 14, 20 and 23 by reference here.

25. Comment: Unfortunately, we cannot support that regulation as written. The reason for this is really the warranty. We are concerned that the current language is linking an emission control system to engine problems. For the uneducated people that are going to be installing these, they are going to see a warranty that says I install a retrofit device. I have a warranty on my engine. We've already seen this in some cases where they're linking an engine problem to the emission control system. And then we have to defend that and have to demonstrate that it was not caused by the emission control system. This puts us in an untenable position because the cost of doing something to this is going to be excessive. If you look at maintenance and labor rates for diesel engine distributor, it's \$100 an hour. It does not take a lot of hours investigating warranty claims to far exceed the cost of an emission control system. We do not want to end up in court. And that's our main concern. With the language as proposed, we feel we're going to get claims that we're going to deny that's going to put us in a position of having to defend ourselves and our product where we will not be able to defend ourselves. (Engelhard)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment and incorporates its responses to Comments 14, 20 and 23 here. The comment is highly speculative and does not warrant altering the warranty requirement. As noted in Comment 14, the mandatory nature of the DRRP makes it essential to have sufficient end-user protection. Participation in the California market is voluntary. Only those manufacturers that perceive participation as financially advantageous will do so. For most manufacturers, inclusion of the engine in the warranty has not caused them to cease participation. Staff notes that the commenter's concerns are at least partially addressed by the amendment which leaves the burden of proof for denying a warranty claim to be determined according to existing legal authority, instead of explicitly placing the burden of proof on the manufacturer.

26. Comment: We submit to you this afternoon that worldwide experience with retrofitted diesel PM filters has not shown any risk of damage to vehicles or engines. You've heard this same conclusion echoed this afternoon by the staff and also was very clearly stated in their report of October 24, 2003. We also understand very clearly why the staff is trying to recommend this warranty. They want to strike a balance between what they see as legitimate interests of the equipment owners and also legitimate interest of filter suppliers such as ourselves. However, the line the ARB staff would draw is so far afield of what is reasonably within our control. In other words, an engine has a lot of different things going on in it. The filter is just one part of that. And to try to put the burden on us to prove that any time something goes wrong it wasn't that one part means that we have to be in control of a lot of things that we in reality do not control. So we would not be able to supply products pursuant to this warranty that is suggested by the ARB staff. (Engelhard)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment and incorporates its responses to Comments 14, 20, 23, 25 and 27 by reference here.

27. Comment: Under the ARB's diesel risk reduction program, when you install a retrofit device on an engine that is out of its manufacturers' warranty period, whether that's the basic 100,000 mile warranty or an extended warranty of, say, 500,000 miles, the current ARB warranty requirement essentially refreshes that expired engine warranty. This is not a fair requirement being placed on retrofit providers. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment. As clearly stated in section 2707(a)(1)(C) of the Procedure, the required warranty only covers damage to an engine that is

proximately caused by a verified retrofit. See also the response to Comment 25, incorporated by reference here.

28. Comment: We submit if ARB needs to require the high-level warranty on mandated programs, then a provision for voluntary or non-mandated programs should be established that includes a technically-verified retrofit, but one that has a warranty limited to the retrofit device only. In fact, we have had conversations with South Coast AQMD where this very same idea was proposed by them. They'd like to see their voluntary school bus program separated from on-road trucks and given the flexibility to choose technically-verified product with the device only warranty. That is part in order to encourage the worldwide leading providers of retrofit technology to reenter the California market. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment and incorporates its responses to Comments 14, 20, 23, 25 and 27 by reference here. Staff believes that such a provision is unnecessary, undesirable and administratively infeasible. Although incentive programs and voluntary implementation of emissions controls are important parts of the overall Diesel Risk Reduction Plan, inconsistent verification requirements would undermine consumer confidence in verified systems, which would likely hinder implementation of future Airborne Toxic Control Measures (ATCMs). Other voluntary and incentive programs do have the option of requiring fully verified systems or not, but the verification program was established specifically to assist with the implementation of ATCMs and must have consistent requirements to be credible. Development of a verification program specifically for voluntary and incentive programs is outside the scope of the current rulemaking.

Additionally, a separate verification would likely be redundant and confusing in the marketplace. The distinction would lead to uncertainty as to whether use of a "technically verified" device would be sufficient to comply with the ATCMs. It would lead to additional implementation difficulties as someone who had installed a "technically verified" system previously would want to be recognized as receiving credit for complying with the regulations. This could lead to a devaluing of verification in two ways: the initial expense could be lower, but consumer protection would be lower as well. Manufacturers would want to sell "technically verified" and verified versions of the same devices for competitive reasons, and successful implementation of the ATCMs could be put in jeopardy. Administering inconsistent verification requirements would be infeasible.

At the February 2004, hearing, where this comment was made, the Board discussed the possibility of a "technical verification" with staff. Chairman Lloyd directed staff to work with SCAQMD staff on the issue. The Chairman of the SCAQMD, however, then indicated that his inclination was to only accept verified retrofits and that he didn't see any reason to do otherwise.

Finally, as noted in the response to Comment 45, upon review of other issues raised by the commenter, staff agreed that certain standard commercial disclaimers did not conflict with the warranty provisions. This resulted in the commenter's reentry into the California market, offering the required warranty on its products.

29. Comment: [We] strongly agree that the removal of the vehicle and equipment from the mandatory warranty is a step in the right direction. (MECA, Donaldson, Johnson Matthey)

30. Comment: We are supportive of the staff's proposal that a mandatory coverage extend only to the engine and not to the vehicle or equipment with which the control system is used. We believe this warranty will achieve the goals of the DRRP (to reduce exposure to diesel particulate matter) while maintaining a reasonable degree of consumer protection. (Coalition for Clean Air, American Lung Association of California, CEERT, NRDC, PCL, Sierra Club, UCS)

Agency Response: Staff agrees with these comments.

31. Comment: Our experience with warranty failures has been minimal. In over 18 months, and over 1,550 installations, we have had a total of three defective backpressure monitors and one particulate trap with a manufacturing defect. In regard to the warranty requirements we strongly support California Air Resources Board's proposed amendment to restrict the warranty coverage only to the engine. We see no reasonable compelling reason for the warranty to include the total vehicle and equipment. This amendment would bring the warranty on the particulate trap in line with the warranty on the on the rest of the truck and its emission systems. If the warranty on the particulate was to include the total vehicle and/or equipment, it would be the only component on the vehicle with this type of "all-inclusive" warranty coverage and we do not believe any manufacturer and especially any installer, including us, could afford this liability. In conclusion, I can say with assurance that Boerner Truck Center, as a retailer and installer of particulate traps, would exit this market if this warranty liability were extended to include installers. (Boerner Truck Center)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. The regulation as adopted by the Board in May 2002 imposed the same warranty requirements on installers and manufacturers. With the Board's adoption of the proposed amendments in February 2004, neither installers nor manufacturers will be required to include the vehicle in their mandated warranty coverage.

32. Comment: We're dealing with emission control devices. These don't necessarily reside in the engine block. There is a path for the exhaust to get out of the truck and it's that path that concerns us that these devices may interact with truck parts around that exhaust path that we can't foresee right now. The exhaust pipe comes out of the truck, off the engine block. A canister is placed someplace between the place

where it comes off the engine block and the end of the exhaust stack. And that's someplace on the truck chassis away from the engine block. So there is an issue of truck chassis or possibly even the truck body that might be affected by an overheating exhaust element. The other thing is the testing that's gone on has been in fairly controlled conditions, bus fleets, and urban situations. Our members deliver out to farms and out in the mountains for home heating oil and a lot of different scenarios. And I think we need to have a good representation of how these devices may perform in a variety of environments, not just an urban setting where you have fleet controls and that kind of close control of the fleets. So our proposition is that the chassis should also be protected by the warranty. (CIOMA)

Agency response: Staff disagrees with this comment and believes that a warranty on the chassis is unnecessary. To help ensure compatibility of retrofit technologies with real applications, the regulation includes a requirement to conduct actual in-field demonstrations of the technologies prior to receiving verification. After a review of staff's experience with failures and damage in the field (described in the Staff Report, p. 12-14, section 4.1.1), staff concluded that the systems thus far encountered appear to have an extremely low probability for causing damage to vehicles and equipment. Referring to experience in general with filter retrofits (staff presentation, December 2003 hearing), staff indicated that it had not encountered any examples of chassis or vehicle damage from among over 5,000 retrofits nationwide (includes those mentioned in Comment 31). Also at the December 2003 hearing, Joe Kubsh of MECA testified that out of the 100,000 filters installed worldwide, he was not aware of any vehicle-related problems that had been caused by filters. Staff has concluded that the real risk of driving technology providers away from the California market (see Comments 23, 26, 37, and 49) outweighs the minimal risk of vehicle damage from retrofits.

33. Comment: We urge the CARB Board to reject your staff-proposed amendments since those changes to the Retrofit Verification Procedures would provide even less protection for the refuse industry than the current verification procedures regulation. The warranty coverage should include the vehicle and the equipment in the regulations as shown above. This is because refuse vehicles are a unique heavy duty truck due to the large amount of exterior parts and equipment on the back of the vehicle. There is no available space on the existing vehicles and a place has to be created by moving the existing parts. As a result the traps that are required under CARB's mandatory retrofit program will create a problem of use of space on the vehicles and therefore the traps will be located in close proximity to that external equipment. This means that a malfunction of the trap can cause damage to vital equipment that would result in disabling of the refuse vehicle. A prime example is the extensive hydraulic systems that are common on all refuse collection vehicles. (CRRC)

Agency Response: Staff disagrees with this comment and incorporates its response to Comment 32 here.

34. Comment: If these devices cause our trucks to catch on fire, and they're saying they're not going to, so we shouldn't be worried about warranties, since it's never going to happen. We need the truck to be protected. We need the engine to be protected, and we need to replace the emission control device. (CTA)

Agency Response: Staff disagrees with this comment and incorporates its response to Comment 32 here.

35. Comment: What keeps us on the opposed side, of course, is the exclusion of vehicle damage in the warranty requirements. We are shrouded in a lot of uncertainty with this still. And where our members know what happens with truck engines when we put them in our trucks and they know what happens when truck engines break down and what goes into fixing them, we haven't used these emission control devices enough yet to know what really happens to them when they're in use all the time on a vehicle. And the discomfort of the manufacturers of these devices doesn't help us in their ability or willingness to warrant the vehicle damage because it makes us more uncomfortable on this issue. So we're getting close to a neutral position, but as of right now, we still have to oppose because of the exclusion of the vehicle damage. (CTA)

Agency Response: Staff disagrees with this comment and incorporates its response to Comment 32 here.

36. Comment: The primary objections that our folks have is regarding staff Proposal Number 3 and the three bullets that we're asking is that basically the other vehicle components or other parts of the vehicle be covered in the event of a failure. We're asking that the words that staff proposed removing about "applicant demonstrating," those words not be removed. But in general, we're most of the way where we would like to be. (CRRC)

Agency Response: Staff disagrees with this comment and incorporates its response to Comment 32 here. In instances where a manufacturer wishes to deny a warranty claim, instead of the regulation requiring the manufacturer to prove that abuse, neglect, or improper maintenance was the cause of a failure, the amendment simply indicates that if such was the case, that failure may be excluded from coverage. Accordingly, the burden of proof is thus left to be determined according to existing legal authorities regarding burdens of proof.

37. Comment: Extending warranty coverage beyond the device itself will increase the cost of systems, reduce competition, provide fewer options to end-users, and reduce research and development to specifically support this market. (Engelhard, Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff incorporates its responses to Comments 14, 20, 23, 25 and 27 by reference here.

Staff agrees that making warranty coverage too extensive would limit options available to end-users. The proposal therefore limited warranty coverage by removing vehicle damage. As noted in Comments 32-35, however, retaining engine coverage is necessary and was requested by numerous end-user groups. These end-users are not comfortable with retrofits, primarily because of their lack of first-hand experience with them and the variety of operating conditions involved. Staff's proposal therefore served to strike a balance between the opposing interests of manufacturers and end-users.

38. Comment: It is not after the claim is resolved that the bills start to come due. The bills actually start as soon as the claim is filed. So what we would anticipate if we had a warranty that covered the engine or something broader, the entire vehicle, that we would wind up, you know, incurring lots of legal fees, claim fees, et cetera, to defend against every situation where someone had a problem with a truck. (Engelhard)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff incorporates its responses to Comments 14, 20, 23, 25, 27 and 37 by reference here. As mentioned in those responses, staff retained coverage of the engine out of the necessity to balance the needs of all the stakeholders involved. Staff notes that the removal of the vehicle from warranty coverage reduces the potential scope of expenses related to warranty claims as described by the commenter.

39. Comment: You should go with the maximum warranty, because if they're so sure that there's no problem, then it won't cost them anything to give us warranties that are like engine warranties. We believe the proposed amendment actually relaxes the warranty requirements rather than addressing the industry concerns. (CTA)

Agency Response: Staff disagrees with this comment and incorporates Comment 37, the response thereto, and Comment 38. As mentioned in the Staff Report (p.12, section 4.1), manufacturers' concerns over cost are not that their devices will cause problems, but that end-users will make spurious claims with the goal of obtaining new vehicles, parts, or equipment (see also Comment 25 and the response thereto, which are incorporated by reference here).

40. Comment: The burden of liability will multiply as other states pattern their programs on California's. (Engelhard, Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff incorporates its responses to Comments 14, 20, 23, 25 and 27 by reference here. If other states were to adopt California's program, the liability would be incurred voluntarily by companies wishing to participate in the various markets thus created. No company would be forced to incur the liability to sell verified products to those wishing to use them.

41. Comment: As you know, we've had a very, very strong position, very strong feelings on this retrofit verification procedure for a long time so to finally make some progress we feel is really great. And specifically, I'd like to thank Catherine Witherspoon and Annette Hebert for working with CTA on this matter. We are very supportive of the warranty, the changes in the warranty requirements, particularly the change to a two-year unlimited mileage warranty for long-haul trucks. That's been the greatest concern with the retrofit warranty throughout this situation. And we are supportive of all three of the changes that have been mentioned here today. (CTA)
42. Comment: Donaldson believes extended warranties are best left to the marketplace and related market activities. If a mandatory extended warranty is required, however, we recommend that the present, mandated, minimum ARB warranty be retained on all application segments and to limit any extended warranty to those engine vehicle segments where it's most appropriate. Donaldson supports ARB's proposed amendments for further extended warranty of two years unlimited miles to apply only to high annual mileage exceeding 100,000 miles per year, newer trucks, less than 250- to 300,000 miles in the on-road heavy-duty segment, gross vehicle weight or exceeding 33,000 pounds. (Donaldson)

Agency Response: Staff agrees with these comments.

43. Comment: The retrofit warranty we agreed to previously was five years, 150,000 miles. Now we're being proposed a two-year unlimited mileage warranty. Again, this is far in excess of what is required from an engine OEM. There has been talk about equivalency with an engine manufacturer's warranty. Well, the engine manufacturer's warranty that's being discussed is an optional one. It's not a mandated warranty. It does not have mandated language. It's a warranty that's provided as a market-driven process to be able to warrant their equipment. The specific language for CARB for an OEM is five years, 100,000 miles, and it does specifically preclude extended warranties from the engine manufacturers. It does not necessarily require them to offer an extended emission control warranty. Yet, what we're looking at is a retrofit that's being put on an existing vehicle to have a warranty that exceeds what comes with the new vehicle. We do not believe that that is proper. We think the warranty should be similar to what's provided to an OEM warranty. (Engelhard)

Agency Response: Staff disagrees with this comment and incorporates its response to Comment 14 by reference here. It is important to the success of the verification program that there be a strong warranty requirement. Retrofit controls will primarily be installed solely to comply with proposed mandates. Therefore, customer choice will be limited to verified technologies. For unverified technologies, which customers can choose to install or not, the warranty is solely a commercial matter. For technologies that may be mandated, it is necessary to ensure sufficient protection of the end-user.

44. Comment: In Europe we are part of the international retrofit diesel emissions group and the Europeans were very indignant that we should have a two-year unlimited mile warranty just like in Europe. (CTA)

Agency Response: The final staff proposal as presented at the February hearing did include a provision to require a two-year unlimited mileage warranty for certain trucks. As noted in Comment 41, CTA accepted that change as meeting their needs on this particular issue.

45. Comment: The ARB has indicated that the warranty requirements included in the verification procedure are the only warranty requirements that the rule imposes, that is the device and engine. However, the ARB has stated that no exclusions for other implied warranties or consequential damage can be included. That is Johnson Matthey's position, as well as normal business practices for anyone providing any type of product, that there is the ability to disclaim such things as merchantability, fitness for purpose, consequential damages, et cetera. The Universal Commercial Code clearly stated if you do not exclude something, then it is included. The current ARB position preventing Johnson Matthey from being able to exclude certain implied warranties thereby includes them. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff has reviewed the issue in conjunction with industry, and has determined that standard language and exclusions allowed by the Universal Commercial Code would not be in conflict with the regulation, provided that manufacturers include a statement that the exclusions do not limit the mandated warranty in any way. As a result of this clarification, Johnson Matthey decided to renew its participation in the verification process and the California market.

46. Comment: The third concern is our ability to put other language into our legal documents and our owner's manual. Right now, the ARB is only allowing emission control suppliers to use the language mandated in the procedure. This is contrary to the warranties allowed for new engines in vehicles. They do contain other language about exclusions of loss of vehicle and convenience, loss of cargo. We're looking for the same ability to put the same type of language. The current practice by ARB is to not allow the emission control suppliers the ability to exclude other warranties that may be implied. This is contrary to what is specifically allowed under the universal commercial code. We would like to put language in such that would limit our warranty liability to only what's being required by the regulation, preclude any other warranty that may be implied or thought is implied by not allowing us to put these in. This is something that's put in standard legal language on terms and conditions and in normal contracts. We've asked, specifically, ARB to provide us with the statutory reference that will not allow us to put that language in our owner's manual. To date, we don't have anything that specifically shows to our lawyers why we're not allowed to provide that language in our warranty. We understand that the warranty and the language we provide should not and cannot exclude what the ARB is particularly

wanting to put and what it is they are regulating. But we're asking to be able to preclude any other warranties beyond this regulation. (Engelhard)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. See staff's response to Comment 45, incorporated by reference here.

E. Miscellaneous

47. Comment: Recently, as members have looked at the verification requirements for the wide variety of sources in California, it has come to our attention that putting a 10% cap on increases in CO emissions when using a diesel emission reduction strategy is problematic - especially in the case of stationary engines which are characterized by very low engine-out levels. Variability in test and measurement methods may make the demonstration of meeting this cap difficult. (MECA)

Agency Response: Staff agrees with this comment. This item was modified in the Notice of Modified Text to allow increases above the 10 percent limit, provided that the overall CO emissions remain below the existing new engine standard.

Finally, the staff received a number of other comments that were not relevant to the proposed action, including a letter from the National Biodiesel Board stating that the Procedure prevents B20 biodiesel fuel from being verified, a letter from Clean Diesel Technologies discussing the need for an assessment of multimedia effects of fuel additives, and a letter from the mayor of the city of Fresno requesting permission to use a particular product in its urban bus fleet.

III. MODIFICATIONS TO THE ORIGINAL PROPOSAL - NOTICE OF MODIFIED TEXT

At the February 2004 hearing, the Board approved both the amendments proposed at the December 2003 hearing and the modifications presented at the February 2004 hearing. The following is a description of those modifications and clarifications, by section number.

Section 2706. Other Requirements.

(b)(2): Staff modified the language describing the limits on emissions of carbon monoxide (CO) for stationary engines to maintain consistency with changes to the Stationary Compression Ignition Engine Airborne Toxic Control Measure (ATCM). As originally proposed, a diesel emission control strategy for stationary applications may not increase CO emissions by 10 percent above the baseline. Per the stationary engine ATCM, the diesel emission control strategy may alternatively meet the appropriate CO emission limit for off-road engines.

Section 2707. Warranty Requirements

(a)(1)(D): The original language stated that the repair or replacement of a warranted part may be excluded from warranty coverage at the applicant's discretion if the applicant demonstrates that abuse, neglect, or improper maintenance was the cause of the failure. Staff deleted the references to the applicant in this subsection such that it now simply indicates that if abuse, neglect, or improper maintenance was the cause of the failure, that failure may be excluded from coverage.

(a)(Table 5.): Staff added a section to the Minimum Warranty Periods table which defines a separate minimum warranty period for certain long-haul trucks. For trucks with heavy heavy-duty engines that are typically driven over 100,000 miles per year and have less than 300,000 miles on the odometer at the time of installation, the minimum warranty period is 2 years, unlimited miles. This amendment gives certain long-haul trucks a longer period of coverage than under the previous 5 year, 150,000 miles warranty period.

(b)(1): Staff added language which explicitly allows the applicant to include, in its warranty statement, descriptions of circumstances that may result in a denial of warranty coverage. Any such descriptions may not limit warranty coverage in any way. Further educating the end-user as to which circumstances may result in denial of coverage should help to reduce the number of inappropriate warranty claims that are filed, and therefore ultimately the cost of emission control systems sold in California.

Section 2709. In-Use Compliance Requirements

(b)(2): The second phase of in-use compliance testing must be conducted using systems that have been in operation for 60 to 80 percent of the minimum warranty period. With the addition of the 2 year, unlimited miles minimum warranty period for systems used on certain heavy heavy-duty vehicles, it may be unclear how to apply the

60 to 80 percent window. For simplicity, staff added language indicating that for all systems used with heavy heavy-duty vehicles, the 60 to 80 percent window must be applied to the 5 year or 150,000 mile warranty period. This is a clarifying change with no regulatory effect.

IV. SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSES - NOTICE OF MODIFIED TEXT

Written comments for the Notice of Modified Text were submitted as follows:

Martin Lassen – Johnson Matthey

Jim Kemp – Santa Barbara County Association of Governments (SBCAG)

Set forth below is a summary of each objection or recommendation made regarding the specific regulatory actions proposed, together with an explanation of how the proposed action was changed to accommodate each objection or recommendation, or the reasons for making no change. The comments have been grouped by topic whenever possible. Comments not involving objections or recommendations specifically directed toward the modifications made or to the procedures followed by the ARB in this Notice of Modified Text are not summarized below.

48. Comment: ARB has stated that the only warranty that exists is the warranty that is encapsulated in this amended protocol and this warranty is limited to the verified device and to engine damage proximately caused by this verified device. However, ARB's presumptive position that prohibits verifiers from clarifying that this is the only warranty in effect creates an unlimited warranty liability contrary to their stated position. To avoid excessive liability over and above ARB's stated intent, verifiers must have the ability to disclaim certain implied warranties and liability for consequential damages. Verifiers do not seek to limit the engine damage addressed by the regulation. Rather, they seek to limit other consequential damages that are included by the California Uniform Commercial Code (C.U.C.C.) unless expressly waived pursuant to the C.U.C.C. ARB staffs proposal states that disclaimers will not be permitted in the owner's manual, implying that they may be provided elsewhere. Under the C.U.C.C. the disclaimers may be found to be ineffective because they are relegated to other documents and are not expressly and conspicuously stated. The owner's manual is the logical document a consumer would consult for warranty information. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. In subsequent discussions, staff and Johnson Matthey were able to find an agreement on the issue of disclaimers in the warranty statement. See staff's response to Comment 45, incorporated by reference here.

49. Comment: The ARB staff proposal conflicts with its express statutory mandates. The Code expressly encourages ARB to reduce emissions from diesel powered vehicles, "to the maximum extent feasible." Health & Safety Code §43700. The proposed warranty requirement will have the opposite effect. The warranty requirements will limit the number of manufacturers willing to participate in the California program. As a result, the new regulations will result in fewer engines outfitted with emission control devices, contrary to the goals of ARB's Diesel Risk Reduction Plan. For those fleets for which conversion to newer vehicles is the only other option, the upgrades could be prohibitively costly. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment and incorporates its responses to Comments 14, 20, 23, 25 and 27 by reference here. As observed in the response to Comment 14, establishing some basic level of end-user acceptance is a key factor in a successful diesel emission reduction program. Because a protective warranty is an important part of building that acceptance, as evidenced by Comments 32-35, the warranty does not conflict with ARB's statutory mandate to reduce diesel emissions.

50. Comment: The ARB staff proposal is arbitrary and capricious because it ignores the findings in the staff report. The staff findings and the evidence submitted to ARB directly state that verified emission control strategies are unlikely to cause engine-related damage. Except for unsubstantiated statements by fleet interests, the requirement for a broad warranty and disallowance of disclaimers is unsupported anywhere in the record. None of the hundreds of examples of vehicle use cited in the staff report involved a situation where correct installation of a verified control system caused engine damage. Stated simply, ARB staff has failed to consider all relevant factors and to demonstrate a rational connection between those factors, the choice made, and the statutes under which it is acting in making this proposal. See *California Hotel & Motel Assn. v. Industrial Welfare Com.* (1979) 25 Cal.3d 200, 212. (Johnson Matthey)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. Staff disagrees with this comment and incorporates its responses to Comments 14, 20, 21, 23, 25, 27 and 45 by reference here.

51. Comment: The solution to verifiers concerns regarding this issue is simple. Johnson Matthey strongly recommends that ARB modify the language in section 2707(b)(1) from, "Any such descriptions may not limit warranty coverage in any way.", to, "Any such descriptions may not limit the required warranty coverage. Use of language limiting other warranties is allowed and will not be grounds for denial of verification by ARB." (Johnson Matthey)

Agency Response: Staff disagrees with this comment and believes that the suggested language is unnecessary. Staff incorporates its response to Comment 45 here.

52. Comment: Our concern on this issue focuses primarily on the reduction in warranty coverage for engines for which an extended warranty has been purchased. Although emission control system manufacturer warranties would be required to cover any damage to the engine by their product, installing such a system can void an existing diesel engine manufacturer warranty. Any engine defect or damage not caused by a diesel emission control system would thus not be covered by a warranty required under the proposed ARB regulatory language. This would expose transit agencies to maintenance costs they had previously been protected from by engine manufacturer warranties. Transit providers would benefit if engine and vehicle manufacturers would agree to honor regular and extended warranties even if diesel emission control equipment is installed during the warranty period. Any effort by the Air Resources Board to encourage manufacturers to honor such warranties would reduce the significant financial impact installing emission control systems can have on small transit providers such as SBCAG. (SBCAG)

Agency Response: This comment is not specifically directed at the proposed amendments. Without waiving this objection, staff responds as follows. The comment does not directly bear on this rulemaking, but staff would like to point out that the Fleet Rule for Transit Agencies does not specify a particular method for reducing emissions. Transit agencies may employ a variety of means, and so installing an emission control system that voids an existing engine warranty is fully their choice. Other rules, however, will require the use of the best available control technology, or BACT. Such rules will include a provision that regulated entities are not required to use a system that would void their engine warranties. The rule for on-road heavy-duty residential and commercial solid waste collection vehicles, for instance, includes such a provision (see section 2021.2(b)(4), Title 13, California Code of Regulations).