

UPDATED INFORMATIVE DIGEST

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

Sections Affected: Proposed amendments to title 13, California Code of Regulations (CCR), section(s) 2701, 2702, 2703, 2704, 2705, 2706, 2707, and proposed adoption of new section 2711.

Background:

In 1998, ARB identified diesel particulate matter (PM) as a toxic air contaminant (title 17, CCR, section 93000). In 2000, ARB adopted the Diesel Risk Reduction Plan (DRRP) with the goal of reducing PM emissions by 85 percent by the year 2020. The DRRP identified a number of key measures to achieve this goal: more stringent standards for all new diesel-fueled engines and vehicles, retrofitting in-use diesel engines with diesel emission control systems, and the use of low-sulfur diesel fuel.

To support the DRRP, staff developed the *Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines* (Procedure) for in-use diesel emission control systems (systems or DECS) that was adopted by the Board in May 2002. The Procedure is used by staff to ensure that in-use DECS achieve real and durable PM emissions reductions. It specifies test procedures, warranty requirements, and in-use compliance testing requirements. Systems that meet all of the Procedure's requirements are verified and thus become candidate compliance options for ARB fleet regulations.

In-use fleet regulations, both adopted by the Board and currently under development, rely on having verified DECS available to fleet owners as compliance options. Diesel vehicles and equipment for which regulations have already been adopted include transit buses (title 13, CCR, section 2023, et seq.), solid waste collection vehicles (title 13, CCR, section 2021, et seq.), vehicles that belong to public agencies and utilities (title 13, CCR, section 2022, et seq.), mobile cargo handling equipment at ports and intermodal rail yards (title 13, CCR, section 2479), transport refrigeration units (title 13, CCR, section 2477), off-road diesel equipment (title 13 CCR, section 2449 et seq.), and private on-road diesel vehicles (title 13, CCR, section 2025 et seq.). These regulations provide several paths to compliance, one of which is the installation of verified DECS. To support the successful implementation of these regulations, it is therefore critical for the Procedure to be an effective means of evaluating DECS. As the verification program has matured, staff has found that a number of amendments to the Procedure are necessary to strengthen support of the in-use fleet regulations.

Approved Amendments: The regulatory language and explanations can be found in the "Staff Report: Initial Statement of Reasons for Proposed Rulemaking" (ISOR) and

the “Final Statement of Reasons for Rulemaking” (FSOR). The most significant amendments are summarized below:

Pre-Installation Compatibility Assessment Requirements

The Board approved the proposal to add new language to section 2706 (Other Requirements) of the Procedure to provide guidance and standards on how to assess the compatibility of a DECS with a candidate vehicle prior to installation. The adopted change establishes basic requirements to help standardize the evaluation process. It also provides the option of using exhaust temperature data from similar engines and applications in lieu of logging exhaust temperature data for every candidate vehicle.

Remedial Action for High Warranty Claim Rates

Previously, the Procedure required annual warranty reporting, but it did not clearly specify possible ramifications of high numbers of warranty claims. Most verified device manufacturers recognize that ARB can terminate a verification if a system has catastrophic problems in the field. However, ARB can take less drastic remedial actions dependent on the situation. The adopted change clarifies this ability as it was unclear in the previous language.

Incident Notification Timeframe

The Board approved the proposal to change the period applicants have to submit a report of any incidents during the durability or field demonstration period. This adopted change results in applicants having a period of no more than 45 days, rather than the previous 90 days, within which they must submit a report describing device/component failures, unscheduled repairs, or unscheduled maintenance events.

Exhaust Temperature and Engine Backpressure Monitoring

Engine history and maintenance information as well as the backpressures, temperatures, and warning and fault codes measured or detected by a verified device are critical data in determining compatibility with an application. This information can also resolve warranty disputes. The Board approved proposed language that requires all temperature dependent DECS that are verified after the effective date of the amendments to have the capability to measure and record certain operational parameters.

Identification of Off-road Categories

Previously, the Procedure grouped marine and locomotive engines, transport refrigeration units, and auxiliary power units into the off-road engines category. However, testing (emissions and durability) for these groups typically follows other test procedures and durability demonstrations that are more appropriate for the applications. The adopted changes clarify this distinction by acknowledging these applications as individual and unique subcategories within the off road arena.

Installation Warranty Clarifications

The Board approved clarifying language to section 2707 (Warranty Requirements) specifying that the installation warranty requirements are identical to the product

warranty requirements. This clarifying language does not in any way alter the warranty period or coverage for either the applicant or installer.

Compliance with California's Industrial Safety Regulations

The Division of Occupational Safety and Health of the California Department of Industrial Relations is in the process of developing safety regulations that will pertain to the installation of DECS on off-road vehicles and equipment. The Board approved that an applicant for verification must conform to these regulations when conducting durability and field demonstrations. The adopted change will ensure that each applicant is familiar with California's industrial safety regulations and is able to comply with them.

Photographic Documentation

To help illustrate and document durability and field demonstrations, the Board approved the proposal requiring the applicant to submit digital photographs of each DECS and demonstration vehicle or piece of equipment. This requires photographs at three stages of a demonstration: before installation of the DECS, after installation, and after completion of the demonstration. This requirement should not add any significant burden to applicants.

Public Availability of Information on DECS Maintenance

The Board approved the proposal requiring applicants to provide comprehensive DECS maintenance information to the device owner upon delivery. This includes routine maintenance procedures, filter cleaning procedures, the identification of any equipment necessary to clean and maintain DECS components, and any performance criteria used to determine a proper state of maintenance.

Component Swapping

The Board approved the proposed expansion of requirements for swapping devices. The adopted amendment removes the restriction that components may only be swapped within a given common ownership fleet. All of the other restrictions and provisions in the current regulation still apply.

Re-Designation Practices for Repowered Engines

Previously, the Procedure did not address situations where the DECS remains on the chassis while the engine is replaced with a different one. This action is equivalent to a DECS re-designation which was already governed under the previous version of the Procedure. The Board approved the clarification specifying that re-designation includes this situation. All existing re-designation requirements apply.

Component Swapping and DECS Re-Designation Warranty Clarifications

The previous version of the Procedure was clear on the applicant's warranty responsibilities in the context of component swapping and DECS re-designation, but less so on the installer's responsibilities. The Board approved the proposal which clarifies the installer's warranty responsibilities for both component swapping and DECS re-designation that occur both before and after expiration of the original warranty. Before expiration of the original warranty, the installer must honor the remaining terms

of the warranty just as the applicant does. If the original warranty has expired or has less than one year remaining, the installer must provide a new one-year installation warranty. Each installer is thus held responsible for each component swap or re-designation that he or she performs.

Labeling Requirements

To ensure that only ARB verified systems carry a label compliant with Section 2706, and have the assigned DECS name, the Board approved the proposed clarification that such label must only be used with verified systems. Therefore any verified device carrying an ARB approved label is obligated to honor all terms and conditions of verification including, but not limited to, warranty requirements.

Unidirectional Design Clarification and Extension

The Board approved the proposed clarification of the unidirectional design requirement contained in Section 2706(r). The amendment will allow applicants to request a waiver of the requirement for aftertreatment components that do not reduce PM using a physical trapping mechanism, such as a diesel particulate filter. As specified in the Procedure, the unidirectional design requirement becomes effective January 1, 2010. However, due to the effects of the current global recession, and recent changes to some of the in-use diesel fleet rules, sales of verified DECS are lower than expected, resulting in some DECS manufacturers having excess inventory of DECS that do not meet the unidirectional design requirement. The Board adopted the proposal providing an extension of the latest installation date for DECS that do not meet the unidirectional design requirements.

Scope of Compliance

Currently, ARB can enforce or revoke a verification if the verified device manufacturer fails to meet the requirements of the Procedure. The Board approved the proposal to add Section 2711 which clarifies ARB's authority to enforce on issues related to verified devices regardless of the location. The adopted amendment explains that a product should not be sold, offered for sale, or introduced into commerce as "Verified" or carry an ARB approved (per section 2706 of the Procedure) label if the product does not meet all the terms and conditions of the governing Executive Order. The amendment specifies that the Executive Officer may modify, revoke or suspend an Executive Order if the applicant violates the terms and conditions thereof. In addition, the amendment clarifies that a device which has not been ARB verified may not be represented as such.

Data Logging Date and Time Stamp and Engine Speed Requirements

The Board approved the proposal to add language to sections 2704 (Durability Testing Requirements), and 2705 (Field Demonstration Requirements), specifying the type of data that must be recorded during durability and field demonstrations.

Other Proposed Amendments

The Board approved the proposal to clarify appropriate contacts and mailing addresses for all application submittals. The Board also approved modifications to the application outline in section 2702.