

State of California
AIR RESOURCES BOARD

INITIAL STATEMENT OF REASONS

**PUBLIC HEARING TO CONSIDER ADOPTION OF THE HEAVY-DUTY DIESEL
ENGINE SOFTWARE UPGRADE REGULATION
(CHIP REFLASH)**

Date of Release: February 6, 2004
Scheduled for Consideration: March 25, 2004

This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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ATTACHMENT A

STAFF REPORT: INITIAL STATEMENT OF REASONS

**PUBLIC HEARING TO CONSIDER ADOPTION OF THE HEAVY-DUTY DIESEL
ENGINE SOFTWARE UPGRADE REGULATION**

Released September 5, 2003

ATTACHMENT B

PROPOSED REGULATION ORDER

ATTACHMENT C

**DESCRIPTIVE LIST OF REGULATORY TEXT CHANGES PROPOSED
FOR THE HEAVY DUTY VEHICLE ROADSIDE INSPECTION PROGRAM
AND THE HEAVY DUTY VEHICLE FLEET INSPECTION PROGRAM**

I. INTRODUCTION

A. OVERVIEW

The September 5, 2003, Initial Statement of Reasons (ISOR) for Heavy-Duty Diesel Engine Software Upgrade (Chip Reflash) and its referenced and incorporated documents are hereby incorporated by reference and included here as Attachment A. The incorporated Attachment A and this supplemental three page document constitute the ISOR for this same titled regulatory action noticed herein on February 6, 2004. This three page document outlines the changes staff has made to the original September 5, 2003, proposal to develop this updated proposal. The Board will hear this updated proposal at a public hearing commencing March 25, 2004. The Board heard the original proposal at its December 11, 2003, public meeting.

B. BACKGROUND

On September 5, 2003, ARB staff released an Initial Statement of Reasons outlining a proposed regulation for Heavy-Duty Diesel Engine Software Upgrade (Chip Reflash). The proposal was presented to the Board on December 11, 2003; however, the Board did not vote on the proposed rulemaking due to Governor Schwarzenegger's direction to state agencies to review regulations for their impacts on business. (Executive Order S-2-03.)

The staff is returning to the Board in March 2004 to request a vote on the proposed regulation. The delay in potential Board adoption of this regulatory proposal has necessitated changes to the proposed compliance dates in the implementation schedule. Additionally, minor revisions and improvements are also included in the proposed regulatory language. The proposed changes are described below and are reflected in the revised underline and ~~strikeout~~ text in the Proposed Regulation Order located in Attachment B, which includes changes made since the September 5, 2003 proposal.

This staff proposal includes the same substantive requirements regarding chip reflash as those originally noticed (California Regulatory Notice Register 2003, NO. 36-Z) and heard by the Board on December 11, 2003, but with implementation deadlines later than those noticed on September 5, 2003. The revised implementation deadlines are proposed to run through December 2006. Other revisions include additional amendments, some of which are not specifically tied to scan tool evaluations, that are proposed for the Heavy-Duty Vehicle Inspection Program (HDVIP) and Heavy Duty Vehicle Fleet Inspection (Fleet Inspection) program regulations.

Staff may propose a voluntary software upgrade program, based on discussions with the engine manufacturers and the California Trucking Association, which if successful, could be implemented in lieu of finalizing the regulatory package noticed herein.

II. CHANGES TO THE ORIGINALLY PROPOSED REGULATION

As stated before, an originally proposed Heavy-Duty Diesel Engine Software Upgrade (Chip Reflash) regulation was released on September 5, 2003. This February 6, 2004, proposal is an update of that proposal. This proposal is essentially the same as the previous proposal with extended compliance dates in the implementation schedule. The changes to the September 5, 2003, proposal are described in the following paragraphs and are included in the Proposed Regulation Order in Attachment B. In addition to the following discussion, additional rationale for the proposed changes to the HDVIP and Fleet Inspection programs, including rationales for changes specifically to provide for Chip Reflash enforcement, are summarized in Attachment C.

A. COMPLIANCE DATES

The originally proposed compliance dates were chosen so that implementation of the low NOx software upgrade would occur soon after the public board meeting. Because the original Board meeting date was October 2003 and the new Board meeting date is March 2004, additional time is proposed for compliance.

The new implementation schedule that is being proposed in the Heavy-Duty Diesel Engine Software Upgrade (Chip Reflash) proposal is as follows:

1993-1994 model years	By April 30, 2005
1995-1996 model years	By August 31, 2005
1997-1998 model years	By December 31, 2005 (except for medium heavy-duty diesel engines (MHDDEs))
1997-1998 model year MHDDEs	By December 31, 2006

The updated proposal also allows an additional year for compliance by 1997 and 1998 model year medium heavy-duty diesel engines. The 1997 and 1998 medium heavy-duty diesel engines are newer than the 1993 through 1996 model year engines, drive fewer miles than the heavy-duty diesel engines, and are also less likely to have acquired the number of miles that was expected to trigger rebuild. Engine rebuild would be accompanied by the installation of software upgrade. Furthermore, the medium heavy-duty engines contribute a much smaller part of the off-cycle NOx emissions that this measure is aiming to control.

Also, in section 2011 (c)(1), the rebuild option for Renault is now correctly listed as Option B for model years 1993-1998, rather than A for model years 1994-1998, as stated in the referenced staff report released on September 5, 2003.

B. IMPROVEMENTS TO THE REGULATORY LANGUAGE

Other improvements to the Chip Reflash regulatory language include clarifying its applicability; adding definitions to improve clarity; and specifying that dealers,

distributors, repair facilities, and rebuild facilities would provide and install the low NOx software. The revised regulatory language also specifies that installation of low NOx software performed as part of an approved incentive or offset project fulfills the requirement of the proposed regulation.

Because the low NOx software installations will be enforced via the HDVIP and Fleet Inspection programs, additional changes are being proposed to further clarify how those programs will include inspections to determine if the low NOx software has been installed, and how those programs will calculate penalties for failure to install software by the dates specified above. In addition, other changes are being proposed that clarify the original intent and streamline enforcement of the HDVIP and Fleet Inspection programs generally. For example, amendments are proposed to require submittal of a Demonstration of Correction Form and to limit ARB post-repair inspections to repeat offenders.

C. OTHER REVISIONS

Other proposed revisions to the HDVIP program improve the consistency of the language for the Scan Tool Evaluations under Section 2185 Civil Penalty Schedule. Minor rewording occurs for the requirements in paragraphs (a), (b), and (d) and under Section 2186 Demonstration of Correction and Post-Repair Test or Inspection. Section 2186 (c) is proposed to be reformatted. Additional minor reformatting and cross-referencing revisions are described in Attachment C.

III. IMPACTS OF THE CHANGES TO THE ORIGINALLY PROPOSED REGULATION

The impacts of the proposed regulation are discussed in the staff report released September 5, 2003. The estimated emission benefits of the proposed regulation from California-registered vehicles are 8 to 10 tons per day in the South Coast Air Basin in 2010. Under the revised compliance schedule proposed in this supplemental staff report, the heavy-duty fleet would not be entirely reflashed until the end of 2005. Therefore, the 30 to 40 tons per day statewide emission reductions from in-state vehicles would not be realized until the end of 2005.

IV. STAFF RECOMMENDATION

The ARB staff recommends that the Board adopt a new section 2011, title 13, California Code of Regulations and amend sections 2180.1, 2181, 2184, 2185, 2186, 2192, and 2194, title 13, California Code of Regulations. The regulation is set forth in the Proposed Regulation Order in Attachment B.