

# SOUTHWEST RESEARCH INSTITUTE

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January 11, 1996

Board Secretary  
Air Resources Board  
P.O. Box 2815  
Sacramento, California 95812

STATE OF CALIFORNIA  
AIR RESOURCES BOARD  
RECEIVED 1/18/96  
BY [unclear]

15-day Comments  
XC: Legal  
MHS  
SSD

Dear Board Secretary:

Subject: Comments on the Proposed Amendments to the California Regulation Requiring Deposit Control Additives in Motor Vehicle Gasoline

Southwest Research Institute (SwRI) has prepared these comments on the Proposed Amendments to the California Regulation Requiring Deposit Control Additives in Motor Vehicle Gasoline.

2257.c.1A.i In this section the ASTM D5500-94 procedure is required to be conducted. SwRI proposes to specify "the most recent version of the ASTM D5500 procedure," not only the ASTM D5500-94 procedure. In the instance that improvements are made to the procedure, the designation may change to ASTM D5500-96, -97, -98, etc.

2257.c.1A.ii In this section the ASTM D5598-94 procedure is required to be conducted. SwRI proposes to specify "the most recent version of the ASTM D5598 procedure," not only the ASTM D5598-94 procedure. In the instance that improvements are made to the procedure, the designation may change to ASTM D5598-96, -97, -98, etc.

Test Method for Evaluating Port Fuel Injector Deposits in Vehicle Engines:

B.1 and 2 The procedure states that "To avoid variability due to engine break-in effects, testing should begin only after 4,000 miles have accumulated." The meaning of this statement may be misconstrued. SwRI proposes to clarify the statement in the Keep-Clean and Clean-Up Procedures as such: "To avoid variability due to engine break-in effects, testing should begin after 4,000 miles have been accumulated on a new engine."

SwRI appreciates the opportunity to comment on these proposed amendments. If anyone at the Air Resources Board has any questions, please contact Greg Scherer at (210) 522-3927 or by fax at (210) 681-5344.

Respectfully,



Greg Scherer  
Manager  
Fuels Technology and Product  
Development Section

GOS/jlm

c: Lee Grant, SwRI  
Kevin Brunner, SwRI



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## DEPARTMENT OF TRANSPORTATION

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15-day comment letter  
STATE OF CALIFORNIA  
AIR RESOURCES BOARD  
RECEIVED 1/8/96  
SECRETARY



X2: [unclear]  
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SSD

January 5, 1996

Board Secretary  
California Air Resources Board  
2020 L Street  
P.O. Box 2815  
Sacramento, CA 95812

Dear Secretary of the Board:

This letter is in response to the notice of public availability of modified text related to the proposed amendments to the regulations requiring deposit control additives in motor vehicle gasoline contained in Section 2257, Title 13, California Code of Regulations and in ARB's "Test Method for Evaluating Port Fuel Injector (PFI) Deposits in Vehicle Engines".

The California Department of Transportation (Caltrans) has reviewed the proposed amendments. We have no comments on the proposed modified text to the Board approved, originally proposed amendments.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. W. Giess".

R. W. GIESS  
Acting Program Manager  
Environmental Program



15-day comment  
 1/12/96  
 STATE OF CALIFORNIA  
 VINCENTI  
 XC: Legal  
 SSO  
 MHS

Ford Motor Company  
 Environmental and Safety  
 Engineering Staff

The American Road  
 Dearborn, Michigan 48121

January 12, 1996

Board Secretary  
 California Air Resources Board  
 P.O. Box 2815  
 Sacramento, California 95812

Ford Motor Company Comments on Modified Text of  
 "Proposed Amendments to the California Regulation  
 Requiring Deposit Control Additives in Motor Vehicle Gasoline"

Ford Motor Company is pleased to provide the following comments concerning the proposed amendments to Title 13, California Code of Regulations, Section 2257, *Required Additives in Gasoline* (issued September 29, 1995) as modified November 16, 1995 by the California Air Resources Board.

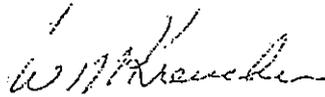
Ford supports the Air Resources Board's efforts to improve and refine the regulations governing the use of deposit control additives in gasoline. In general, we agree with the approach ARB has taken to enhance and clarify the requirements while providing consistency with anticipated federal deposit control provisions for intake valve and port fuel injector deposits.

We are providing the following minor comments which we believe will further refine and clarify the proposed test method changes contained in the modified *Test Method for Evaluating Port Fuel Injector (PFI) Deposits in Vehicle Engines*:

Section 7.7, *Dirty-Up Fuel*, provides an example of fuel properties which the dirty-up fuel may meet. Included are octane, gum, sulfur, olefins, aromatics, RVP, T50, T90, and induction period. The wording of the section suggests that the property limits are not mandatory. We believe that suggesting property levels in the test method provides little benefit to the user. If the limits are simply discretionary, we would prefer that the property listing be eliminated and the actual dirty-up fuel properties always be included in the final test report.

Section 9.2, *Mileage Accumulation*, specifies procedures for the accumulation of mileage during both the dirty-up and clean-up phases of the test. Mileage accumulation may take place on a dynamometer. We suggest that a statement be added to require that vehicles undergoing mileage accumulation on a dynamometer shall be operated at all times with the hood closed. This will enhance the level of test severity and will ensure that temperature requirements in Section 10.5.1.1 *Test Cycle Validation Criteria*, are likely to be met.

We would also like to take this opportunity to urge ARB to continue to consider the adoption of regulations requiring effective control of combustion chamber deposits. Simultaneous control of port fuel injector, intake valve, and combustion chamber deposits will help to ensure that engines operate as cleanly as possible.



Walter M. Kreucher, Manager  
Advanced Environmental and  
Fuels Engineering



76 PRODUCTS COMPANY

JAN 12 1996  
STATE OF CALIFORNIA  
AIR RESOURCES BOARD  
RECEIVED 1/15/96  
FILED AND SECRETARY  
15-Day Comment  
Legal  
MHS  
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January 10, 1995

DENNIS W. LAMB  
General Manager  
Fuels Planning & Technology

James D. Boyd  
Executive Officer  
California Air Resource Board  
2020 L Street  
P.O. Box 2815  
Sacramento, CA 95814-2815

**Subject: Modified Text for Proposed Amendments to the California Regulation Requiring Deposit Control Additives in Motor Vehicle Gasoline.**

Dear Mr. Boyd:

76 Products Company, an operating group of Union Oil Company of California (d.b.a. Unocal), is pleased to submit the following comment on the California Air Resources Board's modified text to the proposed amendments to the gasoline deposit control additive regulation -- paragraph 2257, title 13, California Code of Regulations. Unocal submitted comments on November 15 and represented WSPA at the November 16 hearing.

We are generally pleased with the modified text as proposed; however, we continue to be concerned with section 2257(c)(2)(D), which states that test fuels be "representative of typical commercial gasoline". We remain concerned with this section, because page 8, fourth paragraph of the staff report could have the effect of narrowing previous interpretations of that language. Staff assured us that this was not their intention. At the hearing, we suggested that this paragraph be clarified by making reference to ASTM standards. Staff assured the board that they could provide clarifying language.

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A Unocal Company

The modified text does not clarify the expectations for certain properties, including T50 and T90. If we refer to the staff report (page 8, fourth paragraph) to ascertain what staff believes the T50 and T90 of "typical commercial gasoline" would be, we assume that staff would expect it to be "...very similar to the properties meeting the CaRFG 'average' limits". We again ask that the sentence now contained in 2257(c)(2)(D) of the modified text be changed as follows:

"All other certification test fuel properties must meet ASTM specifications."

Our language change accurately reflects staff's intent as they expressed it privately to us and publicly to the Board. For the sake of defining typical commercial gasoline clearly and basing it on a recognized and accepted standard, we need this amendment. If you have any questions please call me at (213)977-5974.

Sincerely,

*Dennis W. Lamb*  
Dennis W. Lamb

cc: Mr. Dean Simeroth - CARB  
Mr. Peter Venturini - CARB