

State of California  
AIR RESOURCES BOARD

Final Statement of Reasons for Rulemaking  
Including Summary of Comments and Agency Response

PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO THE CALIFORNIA  
REGULATION REQUIRING DEPOSIT CONTROL ADDITIVES IN MOTOR VEHICLE  
GASOLINE

Public Hearing Date: November 16, 1995  
Agenda Item No: 95-12-2

I. GENERAL

This rulemaking was initiated by the issuance of a public hearing notice and the Staff Report: Initial Statement of Reasons for Rulemaking (the Staff Report), which was available for public inspection on September 28, 1995. The notice was also mailed to each of the individuals described in government code section 11346.4(a)(1) through (4) on that date. The Staff Report, which is incorporated by reference herein, contains the text of the regulatory amendments as initially proposed by the staff, and an explanation of the rationale for the proposal. All of the proposed amendments pertained to the Air Resources Board (ARB\Board) regulation requiring deposit control additives in commercial gasoline for use in California motor vehicles (section 2257, title 13, California Code of Regulations (CCR)).

At a public hearing held in September of 1990, the ARB adopted section 2257, title 13, CCR as originally proposed with modifications as proposed by staff. This regulation requires the use of effective deposit control additives in all commercial motor vehicle gasoline beginning January 1, 1992. Under the regulation, producers, importers, or distributors may submit an application to the Executive Officer for certification of a gasoline formulation (i.e. gasoline plus additive) pursuant to the requirements of section 2257(c).

To receive a certification, the applicant must comply with certain administrative requirements and must demonstrate that their gasoline formulation meets the performance criteria under the regulation. The performance criteria require that an applicant conduct specified vehicle tests to show acceptable keep-clean performance in port fuel injectors (PFI) and intake valves; tests must also show acceptable clean-up performance in PFIs as well.

The amendments as originally proposed in this rulemaking affected three areas of the regulation. First, some general amendments were proposed to improve the clarity and specificity of the regulation. Second, specific amendments were proposed to the additive testing criteria to: 1) clarify the criteria for certification test fuels and, 2) update the vehicle test procedures. Third, amendments were proposed to clarify the regulatory requirements for recordkeeping to demonstrate compliance under the regulation.

The deposit control additive regulation (13 CCR 2257) incorporated by reference various test methods. The amendments proposed by staff and adopted by the Board include substituting ASTM<sup>1</sup> test methods for ARB Stationary Source Division's test methods for measuring compliance with the intake valve and port fuel injector (PFI) "keep clean" standards and updating the ARB Stationary Source Division's test methods for measuring compliance with the PFI "clean up" standard. These documents have been incorporated by reference because it would be cumbersome, unduly expensive and otherwise impractical to print them in the CCR. The documents are complicated and lengthy test procedures that would add unnecessary volume to a complex regulation. As the audience for these documents is very small -- primarily oil companies, gasoline distributors and additive manufacturers -- distribution to all holders of the CCR is not needed. Printing the ASTM test procedures in the CCR would also be impractical because the documents are copyrighted. Finally, it is a longstanding and accepted practice for the ARB to incorporate test methods by reference, and the affected public is accustomed to the format.

The ASTM and ARB Stationary Source Division's test methods were made available in the context of this rulemaking in the manner specified in Government Code section 11346.2(a) and section 20(c)(2), title 1, CCR. The ARB Stationary Source Division's Test Method for Evaluating Port Fuel Injector Deposits in Vehicle Engines with proposed amendments was made available upon request from the ARB and was included as Appendix D to the Staff Report. The ASTM test methods are available directly from ASTM at 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, by telephone at (610) 832-9585, or by fax at (610) 832-9555.

At the November 16, 1995 hearing, the Board approved staff's proposals with modifications. Based on staff recommendations, as well as industry comments, the Board decided to delay making any changes to the recordkeeping requirements of the regulation pending issuance of the final federal deposit control additive rule by the United States Environmental Protection Agency (USEPA) later this year. The Board directed staff to evaluate the final federal deposit control additive rule when it is issued and to recommend further amendments as appropriate at that time.

At the November 16, 1995 hearing the Board approved Resolution 95-47. Attachment A to the resolution contained the regulation as originally proposed with modifications as approved by the Board. In the resolution, the Board directed the Executive Officer to adopt the regulation as approved, with such other conforming amendments as may be appropriate, after making the modified language available to the public for comment for a period of at least 15 days.

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1. ASTM, or American Society for Testing and Materials, is a prominent, not-for-profit organization that provides a forum for manufacturers and users of products, as well as academicians and government representatives, to prepare standards based on a consensus approach. Test methods are one type of standard adopted by the ASTM.

Pursuant to the Board's direction, the text of the modified amendments was made available for a period of at least 15 days from December 22, 1995 to January 12, 1996 for the public to comment on the modifications approved by the Board together with the Notice of Availability of Modified Text, which is incorporated by reference herein. Following completion of the 15-day notice period and after considering written comments received during that period, the Executive Officer issued Executive Order G-96-039 adopting the amendments to section 2257.

In taking this action, the ARB has determined that this regulatory action will not result in a mandate to any local agency or school district the costs of which are reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code.

The ARB has further determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

## II. SUMMARY OF COMMENTS AND AGENCY RESPONSE

Comments were received from various interested parties including: the Western States Petroleum Association (WSPA), the American Automobile Manufacturers Association (AAMA), ARCO Products Company (ARCO), 76 Products Company (Unocal), Chevron USA Products Company (Chevron), Kern Oil and Refining (Kern), Southwest Research Institute (SwRI), Ford Motor Company (Ford) and the California Department of Transportation.

Chevron, AAMA, Ford and WSPA generally supported the Board's adoption of the modified proposal, but they offered other specific comments as noted below. General comments of support are not separately summarized below.

### Comments on the Staff Report or Staff's Proposals:

Summarized below are all comments that were submitted during the 45-day comment period or at the hearing and that offered an objection to or recommendation regarding the proposed modifications to the gasoline deposit control additive regulation. No comments were submitted regarding the procedures followed in proposing or adopting the regulation.

1. Comment: WSPA opposes regulatory language that could be subject to wide interpretation. In particular, defining certification test fuels to be "representative of

typical commercial gasoline" [section 2257(c)(2)(E)] is too ambiguous, and may also be inconsistent with the definition of individual fuel parameters set forth under section (c)(2)(D). (WSPA, Unocal.)

Agency Response: The existing regulation requires that the certification test fuel be representative of the fuel produced, imported or distributed by the applicant. In recognition that the properties of fuels produced, imported or distributed for use in California will vary less under the California Phase II reformulated gasoline (CaRFG) regulations, the additive regulation as amended allows the use of a certification test fuel with properties representative of the properties of typical commercial gasoline -- not just the fuel produced, imported or distributed by the applicant -- and specifically allows the aromatic hydrocarbon, olefin, sulfur and oxygenate content to range up to 20 percent below the maximum requested for these properties. In order to avoid any confusion or concern that these two specifications create inconsistent requirements, the regulation was modified to make it clear that the "80 percent" and "representative of typical commercial gasoline" specifications are to be read together to define what constitutes an acceptable certification test fuel. Taken together, these two specifications make the certification test fuel requirements more flexible and make it easier to meet the deposit control additive requirement. To eliminate or reduce the "ambiguity" introduced by providing more flexibility in the regulation would require further specification of test fuel composition (See Comment 2 and agency response below.).

2. Comment: WSPA has concerns that overspecification of the certification fuel requirements could lead to divergence in the certification ranges for individual companies. (WSPA, Unocal)

Agency Response: Staff believes that divergence in the certification ranges would not occur since executive orders certifying gasoline formulations under the regulation are explicit in terms of the allowable maximum gasoline properties, not as "ranges" as the commenters have suggested. Further, staff does not believe that the currently proposed certification requirements are overly restrictive. While amendments provide much more clarity and specificity over the language of the original regulation, flexibility has been maintained and enhanced by the use of typical commercial gasoline as the basic standard with a 20 percent blending tolerance for four specific properties.

3. Comment: WSPA recommends that certification test fuels be capable of transportation system fungibility, be prepared from normal refining blendstocks, and meet all CaRFG requirements. In particular, WSPA asks that the regulation be modified to specifically state what information is required by the ARB for certification applications. (WSPA, Unocal)

Agency Response: Staff agrees with WSPA that the certification test fuel specifications need to be capable of pipeline fungibility and be prepared from normal refining blendstocks. The deposit control additive regulation as amended ensures the former and requires the latter. The existing regulation requires that the certification test fuel be representative of the gasoline formulation for which certification is requested, i.e. representative of a fuel meeting CaRFG requirements. Finally, section 2257 (c)(2) does state what information must be included in the certification application, consistent with the substantive requirements established for certification test fuel properties.

4. Comment: WSPA and a number of other commenters oppose any changes to CARB's current recordkeeping requirements. Currently, producers, importers and distributors are required to compile records for each grade of gasoline on a monthly basis. The commenters do not believe daily additive recordkeeping is justified or appropriate for the following reasons:

- a) The imposition of new or revised recordkeeping requirements would cause a diversion of resources from the primary objective of providing a smooth transition to CaRFG. (WSPA, Unocal)
- b) Requiring daily records before the USEPA issues its final deposit control additive rule may cause inconsistencies if the USEPA rule does not contain a daily recordkeeping requirement. (WSPA, Unocal, Chevron)
- c) There are no demonstrable environmental benefits associated with switching from monthly reconciliation to daily recordkeeping. (WSPA, Unocal, Kern)
- d) The requirement of daily recordkeeping would necessitate costly facilities upgrades, without adequate cost-effectiveness justification, especially for the smaller, low volume facilities which do not currently have daily recordkeeping capability. (WSPA, Unocal, Kern)

Agency Response: As indicated by staff at the November 16, 1995 hearing, staff agrees with industry's suggestion to delay making changes to recordkeeping requirements under subsection (d). The regulation approved by the Board was modified to reflect the existing regulatory language related to recordkeeping under subsection (d). If, after reviewing the final federal deposit control additive rule, staff determines that changes to the state recordkeeping requirements are necessary, a new rulemaking proceeding will be initiated for that purpose.

5. Comment: WSPA would also recommend changes to the existing regulation, section (d)(2), to limit CARB's designation of a violation if records are not available due to circumstances beyond the refiner's control such as fire, earthquake, theft, vandalism, etc. WSPA proposes the following language be added to the end of the existing (d)(2):

"except when the records are not available because of circumstances beyond the reasonable control of the person required to keep such records." (WSPA)

Agency Response: As indicated in the response to comment 4, amendments to the recordkeeping portion of the regulation have been delayed until staff has reviewed the USEPA's final deposit control additive regulation. Moreover, staff believes that the suggested language is unnecessary. Current enforcement policies provide due consideration in times of emergencies such as those suggested by the commenter.

6. Comment: The only suggestion to your proposed regulatory recordkeeping wording is in section (d) Recordkeeping (4). The first sentence now reads,

"Any person required by subsection (d)(1) to maintain and compile records must make those records available for inspection and copying immediately upon request by the executive officer or his/her designee."

This sentence could be misinterpreted to mean California ARB visit could happen on a weekend (when a terminal may be un-manned). The sentence should be revised to add to the end of (d)(4), "...on any business day". (Chevron)

Agency Response: See the response to comment 4.

7. Comment: When developing amendments to the recordkeeping requirements of subsection (d), reconsider using the EPA monthly averaging additive program. With ARB requiring both keep-clean and clean-up additive requirements any short-term upset will more than likely be quickly cleaned-up by the normal additive characteristics of the fuel. The maximum additive rate should be limited to 10% of the certified additive level to address some of your other concerns. (ARCO)

Agency Response: See response to comment 4.

8. Comment: If the ARB does not adopt the EPA monthly averaging program, and goes with daily averaging ARCO suggests:

- a) Limit additive injection rates to only 10% over the certified additive concentration.
- b) Limit the daily average to the certified keep-clean concentration determined by the appropriate ARB testing methodology.
- c) Add special provisions for tank blending of additives, where the daily average is enforced on a pipeline shipment basis.
- d) Clarify that penalties for not complying with the monthly average would be limited to only those days that averaged 95% below the certified additive concentration for those.  
(ARCO)

Agency Response: See response to comment 4.

9. Comment: Similar to the protection provided in the federal additive rule (section 80.156(c)), WSPA believes that liability protection provisions for refiners that have contractual obligations need to be addressed within the ARB's additive regulation. WSPA suggests the following language:

"Where a refiner is found to be in violation of any of the prohibitions of this section as a result of violation occurring at a facility, including, but not limited to, a truck or individual storage tank, the refiner shall be deemed not in violation if it can demonstrate, in addition to showing that the violation was not caused by the refinery or its employee or agent, that the violation was caused by the action of any gasoline refiner, importer, reseller, distributor, oxygenate blender, detergent manufacturer, distributor, blender, or retailer in violation of a contractual undertaking imposed by the refiner designed to prevent such action, and despite the reasonable efforts of the refiner to implement an oversight program to ensure compliance with such contractual obligations." (WSPA, ARCO)

Agency Response: The amendment suggested represents a significant departure from longstanding and effective ARB enforcement policies and practices as reflected in state law and ARB regulations and enforcement protocols. Under these authorities, ARB enforcement of fuels regulations considers the entire chain of distribution to determine responsibility in the context of a penalty structure that includes heavy penalties for knowing or intentional violations of standards with declining penalties for violations that are the result of negligence or strict liability. Given the significance of the suggested change, we believe the modification is outside the scope of the notice for this rulemaking. Moreover, while this proposal is worthy of discussion, staff has many concerns about the appropriateness of such a change. The suggested change would

allow refiners, by contract with another private party, to limit its liability under the regulation. This could allow refiners to limit ARB enforcement authority and inject the complication of interpreting contract provisions in an enforcement action. Refiners could provide protection from liability for the actions of downstream actions by including indemnity provisions in contracts as appropriate.

10. Comment: Requiring daily recordkeeping will increase the industry's recordkeeping burden by approximately a factor of 30. The Staff Report does not justify the need for a change in the recordkeeping requirements. (Kern)

Agency Response: See response to comment 4.

11. Comment: If CARB changes to a daily recordkeeping requirement and injection systems are not upgraded further, it is inevitable that the records will show apparent violations where none actually occurred. The volumes in Kern's injection facilities are of such low volume that a slight timing difference between additive meter reading and the gasoline meter reading can result in a calculated dosage that is significantly higher or lower than the actual dosage rate being injected.

Agency Response: See response to comment 4.

#### **Comments Made During the 15-Day Comment Period on the Modifications to Staff's Original Proposals:**

Because the Board approved staff's original proposal described in the Staff Report with modifications at the November 16, 1995 board hearing, a 15-day notice for supplemental public comment was provided to the public. Also summarized and addressed herein are all comments made during the supplemental comment period. Although all of the comments are summarized and responded to below, it should be noted that several of the comments address issues raised by the original proposal, not the modifications.

12. Comment: Unocal continues to be concerned with section 2257(c)(2)(D), which states that test fuels be "representative of typical commercial gasoline." Unocal remains concerned with this section, because page 8, fourth paragraph of the staff report could have the effect of narrowing previous interpretations of that language. The modified text proposed by staff does not clarify the expectations for certain properties, including T50 and T90. Unocal asks 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."  
(Unocal)

Agency Response: See response to comment 1. Staff does not agree with the commenter that the modified text is unclear. The revised language clearly specifies the requirements for certification test fuel properties. The requirements for aromatic hydrocarbon, olefin, sulfur and oxygen contents are explicitly required as at least 80 percent of the requested maximum properties. The other certification test fuel properties are required to be representative of the properties of typical commercial gasoline, which certainly could include gasoline the applicant intends to market. Therefore, staff believes that the modified text is sufficiently clear and no other modifications are necessary. [Note: Staff contacted Unocal representatives to explain the intent and meaning of the modified text as it relates to the requirements for certification test fuels. After discussing the modified text and requirements for certification test fuels, Unocal representatives understood and accepted the modified text.]

13. Comment: In regard to the keep-clean port fuel injector (PFI) and intake valve tests, SwRI suggests that the regulatory language be changed to specify "the most recent version of the ASTM procedure," instead of requiring a specific version from given year. SwRI believes that this language will automatically incorporate improved test methods as ASTM further develops the test methods. (SwRI)

Agency Response: This suggestion is rejected for two reasons. First, it is not permitted by state law governing the rulemaking process, except where specifically authorized by statute. Second, it has long been ARB policy to specify specific versions of ASTM test methods referenced in our regulations. The commenter suggests that by not specifying particular versions of the test method, automatic incorporation of future improvements could be provided. Staff believes, however, that there are instances where it may not be appropriate to incorporate revised versions of the ASTM test procedures. Because the ARB cannot dictate the actions of the ASTM committees that develop and revise test procedures, ARB policy requires separate rulemakings to revise references to specific test methods to allow for a sufficient and comprehensive review of any new or revised test method.

14. Comment: 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)

Agency Response: Staff believes that the reference to variability caused by "break-in effects" makes it clear that the variability is in relation to new engines. Therefore, further modification of the regulation is not necessary.

15. Comment: Ford believes that suggesting specific property values for dirty up fuel used in the PFI clean-up test procedure provides little benefit to the user. If the limits are simply discretionary, Ford prefers that the property listing be eliminated and that the actual dirty up fuel properties always be included in the final test report. (Ford)

Agency Response: The dirty up fuel specifications referenced in the proposed revised PFI clean up test method were included as additional guidance for an applicant. Staff have required in the past, and will continue to require, that the final dirty up fuel specifications be included in the final test report as suggested by the commenter. (See section C.2.e of the PFI "clean up" test procedure.)

16. Comment: Ford suggests 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. (Ford)

Agency Response: Staff believes that this additional requirement will be of little value and may unnecessarily restrict a test facility's flexibility when conducting a test. The PFI ASTM test method requires that several probes be monitored during the test. It is sometimes necessary to access the engine compartment to maintain proper use of the numerous probes or to inspect the engine during use. The test method requirements have been designed to provide a sufficient level of severity for the test. Foremost, the regulatory requirements governing the certification test fuel properties will provide a sufficient level of severity for the test. In addition, as mentioned by the commenter, the test cycle validation criteria is already an integral aspect of the test procedure and is designed to ensure proper test integrity.