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**REASONS FOR NOT DELAYING IMPLEMENTATION  
OF THE PERIODIC SMOKE SELF-INSPECTION PROGRAM  
FOR HEAVY-DUTY DIESEL POWERED VEHICLE FLEETS**

For: California Air Resources Board meeting in Sacramento, December 8-9, 1994.

I am Howard Sargent, Executive Vice President and Chief Engineer of CalTest Instruments, Inc., Wilmington, CA. CalTest is one of the three leading U. S. manufacturers of smoke opacity meters. For 2 1/2 years, I have been a member of the Society of Automotive Engineers committee developing SAE J1667 Recommended Practice on a snap acceleration test procedure and specifications for smokemeters.

**Status of SAE J1667 Recommended Practice:** For two days, December 1 and 2, we developed Draft 15 of the Recommended Practice with its five appendices.

Everyone is eager to complete the Committee's task. Almost for sure there will be a final formal vote by mail on Draft 16 which will be developed in the next meeting of the Committee, for which two days have been set aside...March 16-17, 1995, in Chicago.

Only two issues remain:

- **Appendix D (adjustments for air density).** The California Trucking Association has asked for an independent laboratory to do certain computations so there will be an alternative to the Appendix D favored by the representative of the California Air Resources Board. The Committee agreed to consider both versions in the next meeting.
- **A "filter" to be proposed by Dr. Jones of England.** The committee, in August 1993, adopted an arithmetic 1/2 second moving average algorithm. That algorithm is in Appendix C of SAE J1667. Dr. Jones proposed in the recent meeting in Chicago that he be permitted to present the case of a "filter" which would replace the algorithm adopted in August 1993. The full flow meters made by American companies have physical response times about 5,000 times faster than the partial-flow meters made by Dr. Jones' company, Lucas, and the other European manufacturers (Bosch, Hartridge, etc.). In the July 1994 meeting the Bosch representative proposed such a "filter" so all meter manufacturers could have "a level playing field" and sell meters.

However, four sampling meters and two full-flow meters were tested simultaneously at the Bosch laboratory in Chicago. Two of the four sampling meters and both full-flow meters tested, after 144 snaps, got results of remarkable closeness, using the algorithm now in Appendix C of SAE J1667. In my opinion, adoption of Dr. Jones' last minute proposal is unlikely.

**All meters to be tested against a reference, full-flow meter.** The California Air Resources Board consultant proposed in the last meeting that the reference meter be a full-flow meter. The Committee favored that approach and Appendix E has been added to SAE J1667. Thus each manufacturer of smokemeters must have its meter verified as accurate by tests of that meter against a reference meter.

**No shortage of meters.** Only software changes are at issue. Sufficient meters can be manufactured to meet the demand when SAE J1667 is finalized in mid-1995.

**Truck owners have 90 days to get first tests done.** Unless it has been changed, Sec. 2193 (a) specifies initial self-testing within 90 days after the effective date of the regulations. If the effective date is January 1, 1996, the first tests do not have to be done until March 30, 1996.

**Alternative to extending effective date.** If a delay is deemed essential, a better approach would be to extend the 90 days to 180 days, instead of delaying the effective date.

Comments of The California Trucking Association  
Regarding Delay of the Heavy Duty Vehicle  
Inspection and Maintenance Program

My name is Stephanie Williams and I am speaking on behalf of the California Trucking Association. CTA is a non-profit trade association representing over 2,400 for-hire trucking companies, private carriers and suppliers operating into and within California. Our members include both intrastate and interstate motor carriers ranging from the one-truck owner/operator to large international companies. I am a member of the Society of Automotive Engineers and represent CTA on the Heavy-duty In-Use Emissions Committee.

Although much has been accomplished during the two years SAE has evaluated the snap-idle test procedure, the committee has not yet completed the draft recommended practice. Our next meeting is scheduled for mid-March where the remaining and most controversial topics remain unresolved - 1) low pass filter vs. moving half-second average 2) corrections for altitude and 3) the location of the repeatability study. If the committee resolves the remaining topics, the draft recommended practice will be balloted to the committee and the repeatability study can begin.

Due to the uncertainty in the test procedures currently under consideration by the Society of Automotive Engineers, CTA supports a delay in the implementation of the Annual Smoke Inspection and Maintenance Program. Since the new SAE recommended procedure may change the specifications for the instrumentation used to measure diesel exhaust opacity, it would be imprudent to require fleet operators to purchase equipment which may not be appropriate for the new procedure.

CTA commends the Air Board for proceeding cautiously and waiting for a scientific, repeatable test before imposing it upon fleet operators.

# AMERICAN TRUCKING ASSOCIATIONS



2200 Mill Road • Alexandria, VA 22314-4677

Allen R. Schaeffer  
Vice President  
Environmental Affairs

(703) 838-1844  
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94-12-4  
12/8/94

December 6, 1994

STATE OF CALIFORNIA  
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RECEIVED 12/7/94  
BY BOARD SECRETARY  
XC: Board members  
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Ms. Pat Hutchens  
Secretary  
California Air Resources Board  
2020 L Street  
Sacramento, CA 95812

**IN RE: NOTICE OF PUBLIC HEARING TO CONSIDER DELAYING  
IMPLEMENTATION OF THE PERIODIC SMOKE SELF-INSPECTION  
PROGRAM FOR HEAVY-DUTY DIESEL-POWERED VEHICLE FLEETS.  
CARB MAIL OUT # 94-37.**

The American Trucking Associations, Inc. (ATA) appreciates the opportunity to submit comments on the above captioned notice issued by the California Air Resources Board (CARB) number 94-37, to delay implementation of the heavy-duty vehicle periodic smoke inspection program until July 1, 1996.

ATA is the national trade association representing the trucking industry. ATA's members represent a wide range of trucking operations; for-hire and private, intrastate, interstate, regional and local trucking companies and package delivery firms based in California and in all parts of the United States.

ATA filed comments on the initial proposal to establish the periodic smoke inspection program which CARB subsequently adopted as a regulation in December of 1992 (California Health and Safety Code 43701(a); § 2190, Title 13 California Code of Regulations). These comments addressed the technical aspects and basis of heavy-duty truck smoke testing, and are incorporated here by reference.

ATA fully supports the CARB proposal to delay implementation of the periodic smoke self-inspection program for heavy-duty diesel-powered vehicle fleets from January 1, 1995 until July 1, 1996. This delay is being requested to allow for the completion of the concurrent effort to adopt a jointly-recommended government and industry standard for diesel smoke testing under the Society of Automotive Engineers (SAE).

December 6, 1994

From participation of the CARB staff on the SAE committee, it should be clear that the final decision to delay the rule should reflect that completion of this standard (SAE J-1667) has been delayed due to concerns about meter specification and performance, validation and repeatability of the test procedure and meter performance. CARB staff participants (Don Chernich, et. al) are active participants in this effort. The extra 18 months proposed here by CARB will provide the necessary time to complete final tasks and a larger scale field validation of the SAE J-1667 standard prior to its final approval and publication. The result will be a more representative test standard for California.

California's initiative to delay implementation of the self-inspection requirement reflects good policy, and will assure that California's smoke testing program incorporates the highest quality testing standard with the greatest degree of acceptance by the regulated industry. Therefore, ATA commends CARB and fully supports the proposed action in this matter to delay the periodic smoke self-inspection program from January 1, 1995 to July 1, 1996.

Thank you for the opportunity to provide these comments. Please feel free to contact me if you have any questions.

Sincerely yours,



Allen R. Schaeffer

/ars

cc: Joel Anderson  
California Trucking Association

Richard D. Wilson  
Deputy Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency



# ASSOCIATED CALIFORNIA LOGGERS

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10/8/94  
October 25, 1994

Air Resources Board  
2020 L Street  
Sacramento, CA 95814

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re: Periodic Smoke Self-Inspection Program

Our association of family-owned logging and log trucking businesses concur with your proposal to delay the effective date of the smoke self-inspection program until July 1, 1996. Maybe by that time you'll see its benefits aren't worth the expense and inconvenience.

Very truly yours,

Ed Ehlers,  
For The Association

RECEIVED

OCT 26 1994

Western Heavy-Duty Diesel Service



401 North Michigan Avenue  
Chicago, Illinois 60611-4267  
312/644-6610

94-12-4  
12/8/94

STATE OF CALIFORNIA  
AIR RESOURCES BOARD  
RECEIVED 12/15/94  
BY BOARD SECRETARY

XG: Board members  
JDB Legal  
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December 2, 1994

Via Overnight Mail

Mr. Don Drachand  
Chief  
Mobile Source Division  
Air Resources Board  
9528 Telstar Avenue  
El Monte, CA 91731

RE: ARB Hearing Item 94-12-4: Delaying Implementation of the Periodic Smoke Self-Inspection Program for Heavy-Duty Diesel-Powered Vehicle Fleets (Mail-Out #94-37)

Dear Don:

The Engine Manufacturers Association (EMA) has reviewed the subject regulations which require owners or operators of heavy-duty diesel vehicles to perform annual self-inspections of their vehicles for excessive emissions of smoke. EMA supports the staff's recommendation to delay the implementation date of the periodic smoke inspection program to allow sufficient time for the Society of Automotive Engineers (SAE) task group to finalize its recommendations for a new smoke test procedure and performance criteria for smoke test opacity meters.

In developing its recommendation to the Board, ARB staff has recognized the burden which would be placed on the owners or operators of heavy-duty diesel vehicles in the event a preliminary periodic smoke inspection program were put in place in spite of the potential for further investment being required to purchase new opacity meters once the SAE J1667 performance standards which pertain to this test equipment are adopted. The decision to delay the implementation date for the program from January 1, 1995 to July 1, 1996 indicates that CARB staff is acting responsibly to prevent undue cost burdens on the trucking industry.

EMA and its member companies have worked with ARB staff on this and many other issues over the years. We look forward to continuing to explore with CARB cost-effective, commercially-viable means to improve air quality in California.

Sincerely,

Glenn F. Keller  
Executive Director

cc: Ms. Pat Hutchins  
ARB Secretary

gfk\hdoh\persmoke.arb

**EXXON** COMPANY, U.S.A.

P. O. Box 1280, Kellogg Tower 1263  
Houston, TX 77252-2180

Legislative & Regulatory Affairs  
Marketing Department  
Craig P. Knoeller  
(713) 656-2880

94-12-4  
12/8/94

STATE OF CALIFORNIA  
AIR RESOURCES BOARD  
RECEIVED 11/22/94  
BY BOARD SECRETARY  
xc: Board Member  
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November 11, 1994

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

Dear Mr./Ms. Secretary:

Exxon Company U.S.A.'s Marketing department supports the ARB proposed implementation delay of the Periodic Smoke Self-Inspection Program for heavy-duty diesel-powered fleets - Section 2190, Title 13, CCR. We agree with industry and the ARB that these rules should not become effective until SAE has finalized its test procedures and the appropriate test equipment become available on the market.

We appreciate the opportunity to comment on these regulations. Should you have any questions, or require additional information, please contact me at (713) 656-2880.

Sincerely,



Craig P. Knoeller  
Environmental Advisor

c: S. E. West  
K. M. Civiello



FULLERTON JOINT UNION HIGH SCHOOL DISTRICT  
DISTRICT TRANSPORTATION CENTER  
1021 South Leslie Street, La Habra, CA. 90631

(714)870-3590

October 25, 1994

12/8/94

STATE OF CALIFORNIA  
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Board Secretary  
Air Resources Board  
P.O. Box 2815  
Sacramento, Ca 95812

Board Secretary:

In reference to mailout #94-37 concerning the implementation of the Periodic Smoke Self-Inspection Program for heavy duty vehicles.

In recent years California has suffered an economic setback unparalleled since the great depression. The enactment of severe anti-pollution laws have driven business and industry from our State in alarming numbers. It is time for us to put our heads together and find common sense solutions to our pollution problems without either bankrupting industry or driving it from our State.

The proposal to smoke check each diesel vehicle every year would only add to a burden most businesses feel is already too heavy. I am a vehicle maintenance supervisor for a Southern California school district and my department works very hard to maintain our diesel equipment in top condition. Periodic engine tuneups and the addition of a fuel additive to our diesel fuel keeps smoke at a minimum. Since I am in diesel maintenance, I take particular notice of diesel-powered vehicles when I am on the road, and I believe that the vast majority I observe are well maintain and smoke is at a minimum. I think it would be a shame to force an expense on an industry that is already, for the most part, in compliance.

So how do you get the remaining vehicles that are polluting the air either repaired or off the road? The Air Quality Management Department has a hotline number for smoking vehicles, and when anyone sees a smoker, they can call the hotline and report date, time, and license number. The AQMD then contacts the owner so he can make the necessary corrections. In the past this has been done on a voluntary basis but it could be changed to a mandatory status. Instead of making it mandatory that every diesel vehicle be tested, just test the ones that are observed on the road to be in violation. If a vehicle is reported to be smoking, send a notice to the owner to bring it in to a state station for a quick opactiy check. If the vehicle passes, then exempt it for six months, and if it doesn't pass, make the owner repair it, then retest. I don't think it would take long before all the smokers would be off the road. Clean air is everyone's business and with a little common sense, I think we can achieve that goal without undue hardship on anyone.

Sincerely

*Mike Cavenee*

Mike Cavenee, Supervisor  
Vehicle Maintenance





**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Office of The General Manager

December 5, 1994

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

Dear Sirs/Madams:

**Delaying Implementation of the Periodic Smoke Self-Inspection  
Program for Heavy-Duty Diesel-Powered Vehicle Fleets**

The Metropolitan Water District of Southern California (Metropolitan) has received the Notice of Public Hearing to Consider Delaying Implementation of the Periodic Smoke Self-Inspection Program for Heavy-Duty Diesel-Powered Vehicle Fleets. The comments herein represent Metropolitan's response as a potentially affected public agency.

Metropolitan is a regional water agency that imports water from Northern California and the Colorado River, and delivers it on a wholesale basis to the coastal plain of Southern California. Through its 27 member agencies, the District provides almost 60 percent of the water used by nearly 16 million people living in portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. To provide this essential service, Metropolitan operates an extensive system of water conveyances, reservoirs, and water treatment plants. As part of Metropolitan's operations, the District maintains a vehicle fleet that includes heavy-duty diesel vehicles. This vehicle fleet is indispensable for the continued maintenance and operation of our widely dispersed facilities.

Metropolitan strongly endorses ARB's efforts to comply with State and federal ambient air quality standards. In particular, Metropolitan took steps to comply with the Periodic Smoke Self-Inspection (PSI) Program adopted on December 10, 1992. In fact, to meet the original regulatory deadline of January 1, 1995 and work in accordance with our own budget and procurement process, Metropolitan purchased eight opacity meters prior to the August 1994 notice of a proposed delay of implementation. The meters (Wager Opacity System Meters, Model #147-0140) meet the specifications of the Society of Automotive Engineers (SAE) procedure J1243, as prescribed in the adopted regulations. The meters cost \$3766 a piece, representing a total expenditure of about \$30,130.

Board Secretary

-2-

December 5, 1994

Metropolitan is concerned about amendments to the PSI Program which will involve specifications different than the currently prescribed meters. This will require that Metropolitan purchase an entirely new set of opacity meters, resulting in a considerable added expense. This is especially unfortunate in light of Metropolitan's good faith effort to comply with the regulatory requirements, and even begin self inspections prior to the designated deadline.

Metropolitan requests that the CARB give thorough consideration as to how the changes may impact the regulated public, including public service agencies. Metropolitan is presently subject to a panoply of regulations that impose complex and costly compliance measures. These amendments could impose additional expenditures that would in turn contribute to increases in the cost of water for Metropolitan's customers and the general public.

Specifically, Metropolitan requests that the CARB consider phasing-in the standardized opacity meters, at least one year beyond the January 1, 1996 deadline. Perhaps for agencies and companies that have already taken steps to comply with the adopted regulations, compliance deadlines could be phased in according to the expected half-life of purchased opacity meters (approximately 5 years according to the manufacturer.) This would allow time and/or flexibility to reasonably appropriate the cost of replacing all the recently purchased opacity meters.

Please consider that Metropolitan, as a public agency, is probably not be alone in the predicament described above and that your consideration may benefit essential public services throughout your jurisdiction. Thank you for the opportunity to participate your regulatory development. If you have any questions or wish to discuss our comments, please contact Erin Atwater of my staff at (909) 392-2502.

Very truly yours,



John E. Clark  
Regulatory Affairs Manager  
Environmental Compliance Division

AER/bml-94-R-136