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California Environmental Protection Agency

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Department of Pesticide Regulation

Department of Toxic Substances Control

Integrated Waste Management Board

Office of Environmental Health Hazard Assessment

State Water Resources Control Board

Regional Water Quality Control Boards

Pete Wilson
Governor

James M. Strock
Secretary for Environmental Protection

June 13, 1996

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

COMMENTS REGARDING ADOPTION OF PROPOSED PRECERTIFICATION REGULATION, ITEM NUMBER 96-5-1, JUNE 14,1996 PUBLIC HEARING

Dear Ms. Hutchens:

I would like to take this opportunity, Chairman Dunlap and Board Members, to express support for your favorable consideration of the proposed regulation and criteria for the precertification of simple, commonly used air pollution equipment and processes. Since the early 1970's, California has lead not only the nation but also much of the world in environmental protection. Along with these high standards, a significant environmental technology industry has grown; today, this $18-20 billion industry employs nearly 180,000 Californians. Companies providing air pollution equipment and processes represent an important part of this industry, and the means of achieving our environmental goals. The proposed regulation, which you will consider at the June 14, 1996 hearing, will provide environmental technology companies a new means of gaining acceptance in the marketplace and throughout the permitting process. Precertification affords opportunities to encourage new technologies, streamline the permitting process, and establish uniform permit conditions statewide.

I also commend the Air Resources Board for implementing a pilot precertification program and developing the proposed regulation and process quickly and effectively. Working together with representatives of industry, the local air districts, verification testing entities, and other interested parties, your staff has made a notable effort seeking input. The staff report reflects thoughtful consideration of the needs of program participants. The proposed rule and precertification program will serve as a model for other certification programs in California.

Although I am unable to attend the public hearing, I want to thank you for the opportunity to express support for the proposed regulation. My sincere thanks also for the continued leadership you, the Board Members, and your staff have demonstrated in promoting environmental technologies as part of our environmental programs. Your work is appreciated by the people of California.

Sincerely,

Ann Cochran Heywood
Deputy Secretary for
Environmental Technology

cc: Michael Tollstrup
Stationary Source Division
Air Resources Board

Donald Owen
Office of Environmental Technology
Air Resources Board

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

96-5-1
6/14/96

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June 12, 1996

VIA FAX & REGULAR MAIL

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

RE: Proposed Regulation for Equipment and Process Precertification

Dear Ms. Hutchens:

The Air Resources Board has published a Notice of Public Hearing to consider the adoption of a regulation and criteria for equipment and process precertification. The purpose of this letter is to provide written comments on the proposed rule.

The Engine Manufacturers Association (EMA) has a strong interest in the proposed rule. EMA represents 35 worldwide manufacturers of engines used in all applications except passenger cars and aircraft. The Association's members produce a wide variety of internal combustion engines used in stationary applications.

EMA supports the stated goals of the proposed regulation -- the need to (1) simplify and streamline the air pollution permitting process and (2) promote uniformity between districts. And we recognize that a wide variety of equipment and emission sources -- including but not limited to stationary engines -- are covered within the scope of the regulation. Nevertheless, EMA has concerns about the proposed regulation. As expressed below, our comments refer only to those compression-ignition (CI) stationary engines that are similar to engines certified under the federal nonroad regulations, and may not apply to those larger CI engines that have no nonroad counterparts. Insofar as the proposal applies to CI engines, it fails to achieve the desired permitting simplification and uniformity. With respect to these CI engines, we have a number of concerns and suggestions, elaborated below, that would help it achieve its objectives.

Independent Testing

Section VIII (a) (2) requires "independent" emissions testing of equipment. While such a measure may be necessary to assure the emissions performance of other kinds of equipment, it is not necessary for CI engines. Most of the manufacturers of CI stationary engines already conduct extensive self-testing programs to certify tens of thousands of on- and off-highway engines and equipment to CARB mobile source standards, and hundreds of thousands to EPA standards. These self-testing programs are well-accepted by both agencies as a cost-effective method of certification.

Since regulatory authorities -- including ARB -- have confidence that such self-certification is sufficient for so many mobile-source engines, surely self-certification can be used for the same purpose in this regulation, where so many fewer engines are involved. Indeed, the conditions under which manufacturers produce CI stationary engines and mobile source engines are identical. In fact, the engines are often the same.

In practice, manufacturers could supply the emissions data for these CI stationary engines to ARB, which would then have valid and reliable information needed for pre-certification. This would spare operators the time and resources needed to secure additional "independent" testing, representing a true streamlining of the permitting process. California businesses and regulators alike would benefit.

Statewide Program

EMA supports the establishment of statewide standards. As CARB knows, EMA has actively supported AB 531 because a statewide program for emissions control provides opportunities for uniformity and simplification. This regulation will provide similar opportunities to the extent that air quality management districts actually make use of it. Otherwise, far from simplifying the permitting process, the precertification procedures simply add another layer of bureaucracy to it. Therefore, all 34 air quality management districts (AQMDs) must use the precertification measures, once they are adopted and implemented, in order to provide the intended program simplification. ARB must assure that the districts use these new measures.

Test Procedures

Section VII (c) notes that test methods adopted by the Board shall be used for verification testing. In keeping with the goals of simplifying permitting and seeking uniformity, EMA believes that the test procedures specified in ISO 8178 should also be approved for precertification of CI stationary engines. Manufacturers currently use the ISO test procedures to certify nonroad engines in the U.S., and to evaluate the emissions performance of other classes of engines. Requiring operators to run tests with different test methods, when valid and reliable data generated by an ISO test

procedure is already available from their engine supplier, clearly adds complexity rather than simplification. Our recent correspondence on this issue to Ms. Cynthia Castronovo at ARB's testing section is enclosed for your reference.

Emissions Standards

EMA favors performance standards, rather than hardware requirements, as a regulatory strategy for emissions control. That is, allowing manufacturers and operators the flexibility to determine how to comply with a standard is preferable to requiring a specific control technology.

In addition, since many CI stationary engines are very similar in design to nonroad engines and often employ identical control technologies, emission standards for these stationary applications should be similar in stringency to ARB and EPA nonroad standards. While the nonroad standards are based on the ISO 8-mode test cycle for nonroad applications, information from appropriate test points can be readily used for developing standards for CI stationary engines. To ensure real-world emissions reductions from stationary engines, emissions standards for them should be developed from an index based on a weighted average of emissions from several operating points, instead of emissions only at rated speed and load. EMA would be happy to work with ARB in developing such standards.

Conclusion

In sum, EMA recommends that the proposed precertification process, at least as it relates to CI stationary engines, be amended so that it (i) allows for self-certification; (ii) assures the acceptance of pre-certification by each AQMD; (iii) provides for the use of ISO 8178 as an approved test method; and (iv) utilizes, as the benchmark for precertification, performance standards aligned with ARB's and EPA's nonroad standards, rather than prescribed hardware requirements.

Please feel free to call if you have questions.

Very truly yours,

Walter S. Brown

Walter S. Brown
Government Affairs Director

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

June 11, 1996

Cynthia Castronovo, Mgr.
Testing Section
Air Resources Board
2020 L Street
P.O. Box 2015
Sacramento, California

Re: CARB Test Method 5

Dear Ms. Castronovo:

Thank you for your response of January 23, 1996 regarding EMA's concerns over the continued use of CARB/USEPA Method 5 for at-site diesel engine testing. We apologize for the delay in submitting this reply.

We appreciate your offer to consider supporting the requested regulatory changes concerning Method 5 as applied to testing diesel engine emissions. However, we feel that our principal point may have been overlooked. For diesel engines that are produced for use in both mobile and stationary applications, common test techniques for laboratory and field certifications should apply. Method 5 does not represent such a common technique, and thus imposes unnecessary costs and inefficiencies. ISO 8178-2 -- employing portable mini and micro-dilution sampling system technology that can be used on any size engine -- does represent such a common technique and so should be utilized in lieu of Method 5.

Method 5 on-site testing results do not correlate sufficiently well with dilution-based laboratory testing methods (due primarily to the differences in filter temperature and cooling methods) to allow for the development of a valid empirical relationship between the two techniques as applied to diesel engines. This creates significant inefficiencies and expenses for manufacturers that produce engines designed and equally suited for use in both mobile and stationary applications. Test methods need to be brought into alignment so that engines already certified for mobile applications

under dilution-based methods do not need to go through another certification and testing process when that same engine is slated for use in a stationary application. Such alignment between laboratory and field testing of the same engines will yield obvious savings of time, personnel resources and money. Simply proposing to modify specific regulations which reference Method 5 particulate measurement for diesel engines (e.g. exclusion of the back half catch) does not address adequately this fundamental issue.

As it now stands, in order for a diesel engine manufacturer to sell to a site permitted by an agency that mandates testing with either Method 5 or Modified (with back-half) Method 5, manufacturers must perform redundant particulate testing using Method 5 on engines that are similar or identical to those used for mobile sources requiring dilution-based test protocol. This yields significant additional (and otherwise wholly unnecessary) compliance costs. It should be noted that this is not the case with NOx HC or CO, as the relevant EPA/CARB test methods have been re-written to include the use of laboratory-grade gaseous analyzers. Therefore, while correction factors for NOx emissions may or may not be applied, the test methods for stationary and mobile source engines are essentially identical. A second engine test is therefore not needed to satisfy the at-site permitting process for NOx.

With the foregoing discussion of EMA's fundamental concern as background, EMA's more specific comments and recommendations are set forth below:

1. EMA is not proposing that ARB modify the technical content of Method 5 for non-diesel engine sources.

2. EMA is proposing that the back-half wash outlined in "Modified" Method 5 as currently required by most if not all of California's regional air quality districts be eliminated for diesel particulate sampling. Due to partial pressure conditions and the high percentage of reactive volatile organics in diesel exhaust, compounds (artifacts) are produced in the undilute stream and captured during the back-half analysis which do not exist in ambient (dilute) conditions. These compounds are not particulate as defined in 40 CFR 86 and ISO 8178 and therefore represent an erroneous measurement of at-site contributions to the emissions inventory of a given area.

3. EMA is proposing that, for IC engine particulate testing only, either the dilution-based methodology outlined in ISO 8178-2 or the unmodified USEPA Method 5, (without back-half wash) should be used at-site.

4. EMA is proposing that dilution-based laboratory data is more accurate and repeatable than either Method 5 or dilution-based data obtained at site and should be used in the permitting process where possible.

5. In Paragraph 2, lines 7 and 8, you state that "ARB Method 5 is designed to measure particulate emissions from a wide variety of sources, not only engines." Method 5 was developed at the National Center for Air Pollution Control in the early 1970's. Stationary emissions sources of concern were wood products plants, boilers, lime kilns and chemical recovery furnaces. Testing of diesel engines using Method 5 is a comparatively recent practice which heretofore has not been subject to a similar level of critical technical scrutiny as ISO 8178 or the Federal transient procedure.

6. Regarding NOx correction factors, diesel engine emission test result calculation procedures referenced in ISO 8178, 40 CFR 86 and 40 CFR 89 include NOx correction factors. The generation of NOx by diesel engines under differing ambient conditions is a predictable, well-understood process in both turbocharged and non-turbocharged engines. EMA will, at your request, supply data to ARB substantiating this claim.

In cases such as this, there are few win-win situations. However, we believe this to be one. By implementing EMA's recommended changes to applicable test methods, ARB obtains consistent, repeatable real-world diesel particulate emissions results with which CARB can build a meaningful, technically defensible particulate emissions inventory statewide. At the same time, EMA stakeholders are spared the unnecessary and burdensome cost and responsibility of performing redundant diesel particulate sampling using two radically different hardware setups and measurement techniques.

EMA will be glad to discuss further these issues with ARB at a mutually acceptable time. Please call at your convenience to set up a meeting or conference call.

Very truly yours,

Walter S. Brown

Walter S. Brown

CAPCOA
CALIFORNIA AIR POLLUTION CONTROL OFFICERS ASSOCIATION

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SSD

96-5-1
6/14/96

June 6, 1996

Mr. James D. Boyd
California Air Resources Board
2020 "L" Street
Sacramento, CA 95812

Dear Mr. Boyd:

This letter is to indicate the support of the California Air Pollution Control Officers Association for your June 14, 1996 board item regarding adoption of a regulation and criteria for equipment and process precertification.

CAPCOA has long been supportive of permit streamlining throughout California. We believe that precertifying simple and commonly used equipment and processes is a measure that will assist applicants without adversely affecting air quality.

We also appreciate your intention to involve the local air districts in the process, and we look forward to working with you on this project.

If you have any questions regarding our position on this item, please give me a call at (415) 749-4971.

Sincerely

Peter F. Hess
CAPCOA President

cc: Pat Hutchens, Board Secretary
Peter Venturini, ARB Stationary Source Division
Ray Menebroker, ARB Stationary Source Division

CALIFORNIA ENVIRONMENTAL BUSINESS COUNCIL, INC.

1830 Bering Drive, #22, San Jose, CA 95112-4212
phone: (408) 436-7686 • fax: (408) 436-7688

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96-5-1
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BY FACSIMILE

June 11, 1996

The Honorable John D. Dunlap, III
Chairman
California Air Resources Board
ATTN: Pat Hutchens, Board Secretary
2020 L Street
Sacramento, California 95814

RE: Comments in Favor of Precertification Regulations, Item No. 96-5-1, June 14, 1996 Public Hearing

Dear Chairman Dunlap:

On behalf of the California Environmental Business Council, Inc. (CEBC), I would like to express strong support for ARB's adoption of the pending regulations and criteria for the precertification of simple, commonly used equipment and processes ("precertification regulations"). I would have expressed this support in person at the Board Hearing, but unfortunately other important business prevents me from doing so.

As the leading state trade association representing the $20 billion California environmental technology and service industry, CEBC has from its inception supported government certification of environmental technologies and processes. A government "stamp of approval" can help technology developers and manufacturers break into new markets, particularly export markets. Having just returned from a major environmental trade mission to China, I was able to confirm firsthand the extremely high level of respect and deference shown by developing countries such as China for California government's leadership in validating and certifying environmental technologies.

CEBC has worked closely with the ARB staff that has been developing the precertification program, and they are to be commended for developing so quickly a relatively user-friendly program and accompanying set of regulations and criteria for precertifying air pollution control equipment and processes. The ARB staff has done an excellent job of seeking the input of California's environmental industry, and in particular addressing the concerns of small businesses, which are likely to be the large majority of applicants under the program.

CEBC has also taken note of the many statements you personally have made on behalf of environmental technology, and the importance of maintaining California's leadership in this area. Your strong leadership has obviously made a major difference in moving the ARB forward to a closer, healthier partnership with California's environmental industry and the State's scientific and engineering community.

In conclusion, CEBC strongly supports the ARB's proposed regulation and criteria for the technology precertification program, and urges speedy adoption by the full Board.

Please feel free to contact me at (408) 436-7686 should you have any questions.

Sincerely,

Brian A. Runkel

Brian A. Runkel
Executive Director

Butte County
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May 14, 1996

Bradley Bransen
Stationary Source Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

Dear Mr. Bransen:

Thank you for the opportunity to comment on the proposed regulation for equipment and process precertification. District staff have performed a review and do not have comments at this time.

Please keep the District advised of further developments.

Sincerely,

W. James Wagoner

W. James Wagoner, P.E.
Assistant Air Pollution Control Officer

WJW:jw