

- CAG-13. Docket Nos. RP82-57-012 and RP83-52-006, United Gas Pipe Line Company
- CAG-14. Docket Nos. RP77-62, RP80-97, RP81-54, RP81-56, RP82-10, RP82-12, RP82-121, RP82-125, RP83-47, RP84-3, TA82-1-9, TA82-2-9, TA83-1-9 and TA83-2-9, Tennessee Gas Pipeline Company, a Division of Tenneco, Inc.
- CAG-15. Docket No. ST83-659-000, Harry C. Boggs Natural Gas Company
- CAG-16. Docket Nos. ST81-289-001, ST81-484-001, ST81-466-001, ST81-290-001, CP83-295-000, ST82-443-000 and ST82-445-000, Seagull Energy Corporation
- CAG-17. Docket Nos. RI74-188-020 and RI75-21-015, Independent Oil & Gas Association of West Virginia
- CAG-18. Docket No. RI83-8-009, Mobil Oil Corporation and Northern Natural Gas Producing Company
- CAG-19. Docket No. G-7004-023, Pennzoil Company
- CAG-20. Docket Nos. CI81-178-007 and CI83-350-002, Exxon Corporation
- CAG-21. Docket No. CI84-31-001, Samedan Oil Corporation
- CAG-22. Docket Nos. CP83-438-001 and CP83-438-002, East Tennessee Natural Gas Company
- CAG-23. Docket No. CP66-289-001, et al., Tennessee Gas Pipeline Company, a Division of Tenneco Inc. Docket Nos. CI67-1810-001 and CI77-347-001, the Louisiana Land and Exploration Company
- CAG-24. Docket No. CP80-541-001, Texas Gas Transmission Corporation. Docket No. CP81-6-001, Texas Gas Transmission Corporation
- CAG-25. Docket Nos. CP84-35-000, CP84-43-000 and CP84-48-000, National Fuel Gas Supply Corporation
- CAG-26. Docket No. CP81-107-000, et al., Boundary Gas, Inc. Docket No. CP84-14-000, Couch Gas Storage Company
- CAG-27. Docket No. CP83-411-000, Equitable Gas Company
- CAG-28. Docket No. CP83-394-000, Montana-Dakota Utilities Company
- Power Agenda

I. Licensed Project Matters

- P-1. Project Nos. 4024-001, 002, 6439-001 and 002, Gregory Wilcox Project Nos. 6423-001, 002, 6424-001, 002, 6425-001, 002, 6426-001, 002, 6427-001, 002, 6428-001 and 002, Uncompahgre Valley Water Users Association and Montrose Partners
- P-2. Project No. 2971-000, Allegheny Electric Cooperative, Inc. Project No. 2988-000, Ohio Edison Company, Project No. 3219-000, Duquesne Light Company, Project No. 3490-002, Potter Township, Pennsylvania
- P-3. Project No. 4114-001, Long Lake Energy Corporation, Project No. 5614-000, New York State Electric and Gas Corporation and Georgia-Pacific Corporation

II. Electric Rate Matters

- ER-1. Docket No. ER83-736-000, Pennsylvania-New Jersey-Maryland Interconnection and Philadelphia Electric Company
- ER-2. Docket Nos. ER84-131-000 and ER83-628-000, Kansas Gas and Electric Company
- ER-3. Docket No. ER84-146-000, Union Electric Company
- ER-4. Docket No. ER84-117-000, Philadelphia Electric Company
- ER-5. Docket No. ER84-74-000, Canal Electric Company
- ER-6. Docket No. ER83-726-002, Boston Edison Company
- ER-7. Docket Nos. ER81-450-000 and ER81-461-000 (Consolidated), Union Electric Company and Missouri Edison Company
- ER-8. Docket No. E-9592-000, Roscoe E. Dean and William D. Lovin V. Georgia Power Company
- ER-9. Docket Nos. EF-84-2011-002, EF-2011-003, EF84-2011-004, EF-84-2011-005, EF84-2021-002, EF84-2021-003, EF84-2021-004 and EF84-2021-005, U.S. Department of Energy—Bonneville Power Administration
- ER-10. Docket Nos. EL80-7-003 and EL80-7-004, Southeastern Power Administration V. Kentucky Utilities Company
- ER-11. Omitted

Miscellaneous Agenda

- M-1. Docket No. 83-56-000, application for license, permit and exemption from licensinig for water power projects
- M-2. Reserved
- M-3. Reserved
- M-4. Docket No. RM83-2-000, fees applicable to natural gas pipeline rate matters
- M-5. Docket No. RM82-25-000, fees applicable to producer matters under the Natural Gas Act

Gas Agenda

I. Pipeline Rate Matters

- RP-1. Docket No. TA84-1-53-003, 004 and 008, K N Energy, Inc.
- RP-2. Docket No. RP84-17-001, Tennessee Gas Pipeline Company
- RP-3. Docket Nos. RP84-15-003 and 003, MIGC, Inc., Docket Nos. RP84-7-001 and 002, Colorado Interstate Gas Company
- RP-4. Docket Nos. RP84-11-001 and 003, Columbia Gas Transmission Corporation
- RP-5. Docket Nos. RP83-139-001 and 002, El Paso Natural Gas Company
- RP-6. Docket No. RP83-106-001, Transwestern Pipeline Company, Docket No. RP81-130-007, et al., Transwestern Pipeline Company, Docket No. RP83-113-001, Pacific Gas Transmission Company, Docket No. RP83-135-001, Pacific Interstate Transmission Company, Docket No. RP83-136-001, Pacific Offshore Production Company, Docket No. RP84-28-000, Pacific Interstate Offshore Company
- RP-7. Docket Nos. RP77-62-023, RP80-97-031, 032, RP81-54-015, 016, 017, RP82-10-

003 and RP82-12-004, Tennessee Gas Pipeline Corporation, A Division of Tenneco, Inc.

RP-8. Omitted

RP-9. Docket No. RP80-136-000, Southern Natural Gas Company

RP-10. Docket Nos. RP81-130-004, RP83-25-006, TA82-2-42-010 and TA83-1-42-002, Transwestern Pipeline Company

RP-11. Docket No. OR78-1-013 (Quality Bank), Trans Alaska Pipeline System

II. Producers Matters

- CI-1. Docket No. G-3653-005, et al., Sun Exploration and Production Company, et al., Docket No. G-3711-002, et al., Breton Resources Company, et al., Docket Nos. CI83-337-000 and CI83-350-000, Exxon Corporation

III. Pipeline Certificate Matters

- CP-1. Docket No. CP80-17-000, 001 and 002 (Phase I), Trans-Anadarko Pipeline System
- CP-2. Docket Nos. CP81-107-006, 007, CP81-108-003, 004, CP81-296-004, 005, 006, 007, CP81-298-002, 003, CP82-470-002 and 003 (Phase I), Tennessee Gas Pipeline Company a Division of Tenneco, Inc., Docket No. CP83-403-000, Consolidated Gas Supply Corporation, Docket Nos. CP82-119-004, 005 and 006, Algonquin Gas Transmission Company, Docket Nos. CP82-446-002, 004 and 005, Texas Eastern Transmission Company
- CP-3. Docket No. CP83-283-000, Northwest Pipeline Corporation
- CP-4. Omitted

Kenneth F. Plumb,
Secretary.

[FR Doc. 84-1924 Filed 1-19-84; 4:16 pm]

BILLING CODE 6717-01-M

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FEDERAL RESERVE SYSTEM

TIME AND DATE: 10:00 a.m., Friday,
January 27, 1984

PLACE: 20th Street and Constitution
Avenue, NW., Washington, D.C. 20551

STATUS: Closed

MATTERS TO BE CONSIDERED:

1. Personnel actions (appointments, promotions, assignments, reassignments, and salary actions) involving individual Federal Reserve System employees.
2. Any items carried forward from a previously announced meeting.

CONTACT PERSON FOR MORE

INFORMATION: Mr. Joseph R. Coyne,
Assistant to the Board; (202) 452-3204.

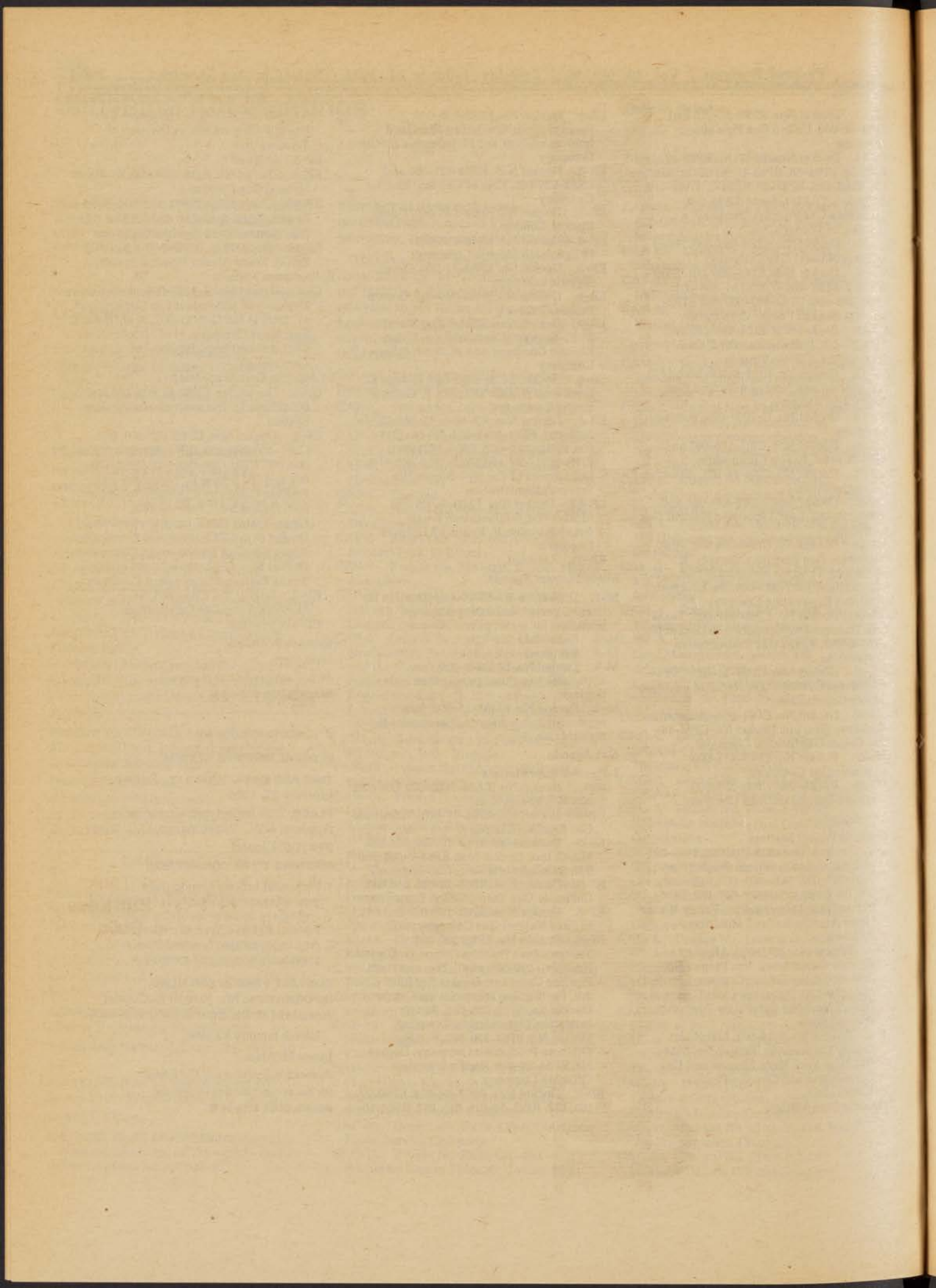
Dated: January 20, 1984.

James McAfee,

Associate Secretary of the Board.

[FR Doc. 84-1982 Filed 1-20-84; 12:40 pm]

BILLING CODE 6210-01-M



**Tuesday
January 24, 1984**

Part II

**Department of
Transportation**

Coast Guard

33 CFR Part 157

**Segregated Ballast, Dedicated Clean
Ballast and Crude Oil Washing on Tank
Vessels of 20,000 DWT or More But Less
Than 40,000 DWT Carrying Oil in Bulk;
Proposed Rule**

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 157

[CGD 82-28]

Segregated Ballast, Dedicated Clean Ballast and Crude Oil Washing on Tank Vessels of 20,000 DWT or More but Less Than 40,000 DWT Carrying Oil in Bulk**AGENCY:** Coast Guard, DOT.**ACTION:** Notice of proposed rulemaking.

SUMMARY: The Coast Guard is proposing to amend its Rules for the Protection of the Marine Environment Relating to Tank Vessels Carrying Oil in Bulk. This amendment is necessary to implement 46 U.S.C. 3705(c) and 3706(d), formerly Subsections (7) (E), and (H) of Section 5 of the Port and Tanker Safety Act of 1978 (the Act). The proposed rules are applicable to U.S. tankships, and to foreign tankships (other than those on innocent passage) entering the navigable waters of the United States or which call at a port or place subject to the jurisdiction of the United States. The rules are intended to reduce discharges of oil from existing tankships of 20,000 to 40,000 deadweight tons (DWT) by implementing the Act, which requires the installation of segregated ballast tanks, dedicated clean ballast tanks, or crude oil washing systems.

DATE: Comments must be received on or before May 14, 1984.

ADDRESSES: (1) Comments on this proposal or the combined preliminary regulatory evaluation and draft environmental assessment should be mailed to Commandant (G-CMC/44) (CGD 82-28), U.S. Coast Guard, Washington, DC 20593. The comments may be delivered to and will be available for inspection or copying at the Marine Safety Council (G-CMC/44), Room 4402, Coast Guard Headquarters Building, 2100 2nd Street, SW., Washington, DC, 20593. Normal office hours are between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, except holidays. Copies of the combined draft environmental impact statement and preliminary regulatory evaluation may also be obtained by a written request to the preceding address. To speed processing, the Coast Guard asks that these requests not be included in the comments submitted regarding the proposed rulemaking.

(2) Comments on the information collection requirements contained in this proposal should be submitted to: Office of Regulatory Policy, Office of Management and Budget, 726 Jackson

Place, NW, Washington, DC, 20503, ATTN: Desk Officer, U.S. Coast Guard. **FOR FURTHER INFORMATION CONTACT:** LCDR Alan E. Spackman, Project Officer, at (202) 426-4431.

SUPPLEMENTARY INFORMATION: On March 18, 1982, the Coast Guard published notice in the *Federal Register* (47 FR 11724) of its intent to develop regulations to implement Subsections (7) (E) and (H) of Section 5 of the Port and Tanker Safety Act of 1978 (PTSA) (Pub. L. 95-474, as amended; 46 U.S.C. 391a) and of its intent to develop a draft environment impact statement (EIS) to support the issuance of a notice of proposed rulemaking for those regulations. On August 26, 1983, Pub. L. 98-89 was passed; this statute substantially recodified Title 46b of the U.S. Code, including 46 U.S.C. 391a. The referenced Subsections (7) (E) and (H) now appear at 46 U.S.C. 3705(c) and 3706(d).

To ensure that the full range of issues related to the EIS were addressed, the Coast Guard solicited comments relating to the notice and preparation for the draft EIS. Copies of the notice were mailed to the operators of those vessels which would be affected by the proposed action, to other Federal Agencies, coastal states, environmental groups, and to persons who had previously expressed interest in similar proposals. A total of 30 responses were received. A discussion of the comments received is presented in the following paragraphs.

Interested persons are invited to participate in this proposed rulemaking or in the preparation of the regulatory evaluation and environmental impact statement by submitting written views, data, or arguments. Persons submitting comments should include their names and addresses, identify this notice (CGD 82-28), the specific section of the proposed regulations or supporting documents to which their comments apply, and give reasons for each comment. Receipt of comments will be acknowledged if a stamped self-addressed envelope or postal card is enclosed. To the extent permitted by law, the proposal may be changed in light of the comments received. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal. No public hearing is planned, but one may be held at a time and place to be set in a later notice in the *Federal Register* if requested in writing by an interested person who can demonstrate that the opportunity to make an oral presentation will aid this rulemaking.

Drafting Information

The principal persons involved in the drafting of this rule are LCDR Alan E. Spackman, Project Manager, Office of Merchant Marine Safety and Mr. Stanley M. Colby, Project Attorney, Office of Chief Counsel.

Discussion of Comments

Because they are germane to the proposal, five documents that were received by the Coast Guard prior to the publication of the notice have been placed in the public comment file. Two of these documents, a statement from the Portuguese Government and a letter from the Embassy of India express concern over the unilateral nature of the requirements of subsections (7) (E) and (H) of Section 5 of the PTSA. Third document is comprised of a series of letters submitted by the Union of Greek Shipowners. This document protests the implementation of unilateral standards in excess of those agreed to by the International Maritime Organization (IMO, formerly IMCO). Further, the submittal by the Union of Greek Shipowners discusses the probable impact of the standards, technical feasibility and costs; the technical information presented does not differ substantially from that already available to the Coast Guard and presented in the preliminary regulatory evaluation and draft environmental impact statement (DEIS/RE). The fourth document presents the joint view of two major U. S. shipbuilding companies and three companies which own or operate U.S. flag tank vessels. The comments presented in this document fully support the legislated standards and urge rapid regulatory implementation. This document notes that the standards are but a part of a larger, more comprehensive action aimed at reducing oil pollution resulting from the marine transportation of oil. It further notes that the industry has had since 1978 to prepare for the implementation of the standards in 1986; a failure to implement the standards would adversely affect those companies that had acted in good faith in planning, contracting, and building new tank vessels in anticipation of the standards. The fifth document, a letter from a U.S. Senator, also urges rapid regulatory implementation.

Two letters, from companies or organizations associated with the towing industry, requested clarification of the proposal with respect to tank barges. The Coast Guard is proposing that the standards only be applicable to self-propelled vessels.

Comments submitted by the Oil Companies International Marine Forum, the International Chamber of Shipping, the Union of Greek Shipowners, the International Association of Independent Tanker Owners and an *Aide Memoire* submitted jointly by the Governments of Belgium, Denmark, Finland, France, the Federal Republic of Germany, Greece, Japan, the Netherlands, Norway, Sweden, and the United Kingdom express strong reservations about the unilateral nature of the standards, citing the considerable actions already undertaken by IMO to control oil pollution. The industry commenters further contend that the environmental impact of the standards would be minimal, the proposed action would not be cost effective, and (by limiting trading flexibility) the standards would impose additional operating and capital costs on tankships trading to U.S. ports.

Adverse comments were received from four (of the approximately thirty) companies which own or operate U.S. flag vessels which would be affected by the proposed rules. These commenters also expressed concern over the unilateral nature of the standards. Further, to support their opposition to the proposal they cite (in general terms) such factors as lost carrying capacity, high capital costs, reduction in serviceable life of existing tankships, expected small environmental benefit and adverse impacts on military transport capacity. One of these commenters, an operator of thirteen vessels, indicated a high probability that implementation of the standards would cause the company to quit the oil transport business. One commenter asked that particular attention be paid to the impact of the standards on U.S. vessels in foreign trade and on the U.S. refining industry. This commenter believes that the increased domestic transportation costs that will result from these standards will cause oil companies to import refined products rather than crude oil. While all of these are valid concerns, and most are addressed in the DEIS/RE, the only means of eliminating these areas of concern would be for the Congress to amend or revoke 46 U.S.C. 3705(c) and 3705(d). Without legislative relief, the Coast Guard must issue regulations implementing the mandated standards.

The Chemical Carriers Association (CCA) requested that special consideration be given to tankships carrying chemicals which would be affected by the proposed rules and referenced technical documents that they had previously submitted to both

the Coast Guard and IMO. (Copies of these documents have been placed in the public comment file for inspection.) Essentially, the CCA contends that these vessels rarely operate without sufficient cargo to meet the draft and trim standards for segregated ballast tanks (SBT) and dedicated clean ballast tanks (CBT) and normally carry only incidental cargoes of "product oil". However true this may be, the statute does not provide the Coast Guard with the flexibility to accept the design and operational alternatives they propose. 46 U.S.C. 3706 mandates coverage for any self-propelled vessel which is constructed or adapted to carry, or which carries, oil or any hazardous materials in bulk as cargo or in residue. The Act's standards for SBT or CBT, that this proposal would implement, are applicable to any of these existing vessels of 20,000 to 40,000 DWT that are 15 years old or older that carry products, as mandated by 46 U.S.C. 3706(d). No exception is provided in the statute of a vessel designed to carry hazardous materials which carries only small quantities of products in bulk.

Discussion of the Proposed Regulations

46 U.S.C. 3705(c) and 3706(d) require any self-propelled vessel that is:

(a) An existing crude oil tanker of at least 20,000 DWT but less than 40,000 DWT, and at least 15 years of age, to be equipped with SBT or a crude oil washing system (COW) before January 2, 1986, or the date on which it reaches 15 years of age, whichever is later.

(b) An existing product carrier of at least 20,000 DWT but less than 40,000 DWT, and at least 15 years of age, to be equipped with SBT or may operate with CBT before January 2, 1986, or the date on which it reaches 15 years of age, whichever is later.

46 U.S.C. 3701 (1) and (3), when read together, define "existing vessel" as a vessel other than one—

(a) For which the building contract is placed after June 1, 1979; or

(b) In the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction after January 1, 1980; or

(c) The delivery of which is after June 1, 1982; or

(d) That has undergone a major conversion, under a contract made after June 1, 1979, or construction work that began after January 1, 1980, or was completed after June 1, 1982.

46 U.S.C. 3705(c) and 3706(d) are applicable to all U.S. tankers and to foreign tankers which operate on or enter the navigable waters of the United States (except those in innocent passage) or which transfer oil or

hazardous materials in any port or place subject to the jurisdiction of the United States.

In the June 30, 1980 Federal Register (45 FR 43705), the Coast Guard issued regulations to implement portions of the PTSA requiring SBT, CBT, and COW on new tank vessels of 20,000 DWT or more and existing tank vessels of 40,000 DWT or more. Vessels subject to these regulations had to comply by June 1, 1981. Procedures for obtaining exemptions from the SBT, CBT, or COW requirements on certain existing vessels were published in the January 15, 1981 Federal Register (46 CFR 3510). This proposed rulemaking is composed of a series of amendments to existing regulations that implement the appropriate SBT, CBT, and COW standards, as well as the exemption procedures, applicable to existing tankships of 20,000 to 40,000 DWT on the appropriate compliance date.

The following paragraphs provide a brief discussion of the Coast Guard's intent in this rulemaking proposal:

1. The Coast Guard is proposing to revise the authority citation for all of 33 CFR Part 157 to reflect the recodification of Title 46 of the U.S. Code.

2. Proposed § 157.04 provides for the Coast Guard to authorize classification societies (CS) to conduct certain of the plan reviews, certifications, and inspections required by this proposal. For U.S. vessels, the proposal limits this authorization to plan review, certification, and inspection of COW systems, reflecting the current understanding between the Coast Guard and the American Bureau of Shipping (ABS) for conducting these functions under an agreement signed April 27, 1982 and published by the Coast Guard in Navigation and Vessel Inspection Circular No. 10-82 titled "Acceptance of Plan Review and Inspection Performed by the American Bureau of Shipping for New Construction or Major Modifications to U.S. Flag Vessels." The development of cooperative agreements between the Coast Guard and the ABS is a continuing process. The proposed rule is not intended to foreclose the future expansion of the use of third-party certifications. For foreign vessels, the Coast Guard is proposing to authorize a CS to perform the plan review, inspections, and certifications for SBT, CBT, and COW systems on existing vessels of 20,000 to 40,000 DWT. The Coast Guard's concerns, as reflected in the proposed rules, are that such CS which performs these functions:

(a) Is familiar with the vessel; therefore, the Coast Guard proposes that

the authorization is limited to vessels classed by that CS.

(b) Has available the applicable Coast Guard regulations.

(c) Is knowledgeable of the applicable international standards under the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL Protocol) as they apply to the vessels they will be certifying, as evidenced by the authorization of the vessel's flag 9state allowing the CS to perform inspections and certifications on that vessel under the MARPOL Protocol.

(d) Will ensure that the results of any vessel inspections and certifications under these regulations will be made available to the Coast Guard if the need arises.

(e) Will inform the Coast Guard of its inspection and certification of each vessel; this is intended to preclude any undue delay of the vessel on its first entry to a U.S. port.

To conform to the provisions of 46 U.S.C. 3316, the American Bureau of Shipping or other U.S. classification society may perform these functions for U.S. vessels.

3. It is proposed to revise § 157.07 to allow the Coast Guard to accept equivalents in lieu of design and equipment requirements in Part 157 that do not stem from the MARPOL Protocol. The original purpose of § 157.07 was to implement to standards governing the consideration of equivalents in Regulation 3 of the MARPOL Protocol. However, in this and other rulemakings, the Coast Guard has proposed or enacted a limited number of standards which exceed those of the MARPOL Protocol. The purpose of this proposed amendment is to provide vessel owners and operators with the additional flexibility provided by the ability to propose equivalents when complying with those standards.

4. It is proposed to change the heading of § 157.10a for clarity by indicating the coverage of the existing regulation is limited to vessels of 40,000 DWT or more.

5. Proposed § 157.10c provides the substance of the mandated requirements of 46 U.S.C. 3705(c) and 3706(d). The major provisions are:

a. The same contract and delivery dates are used to determine the applicability of the CBT, SBT, and COW standards as are contained in the statute.

b. The statute specifies applicability to vessels of 15 years of age or older, but is silent on how the age of a vessel is to be determined. For simplicity the Coast Guard proposes to base the age of a

vessel on the date on which the vessel was delivered to its original owner. Earlier dates, based on the contracting or keel laying of the vessel were rejected; they would have required compliance before the vessels had seen 15 years service and the resulting regulation would have been unduly complicated.

c. The existing standards in 33 CFR Part 157 for SBT, CBT, and COW would be made applicable to these vessels with provision for exceptions in certain cases. The basis of the existing SBT and CBT standards are the draft and trim criteria of the MARPOL Protocol which are contained in both § 157.09(b) and § 157.10a(d). These criteria were developed by the IMO to provide sufficient segregated ballast capacity that a vessel of 150 meters (492 feet) or more in length could be reasonably expected to operate in all but unusually heavy weather conditions without recourse to ballasting its cargo tanks. These criteria, under the MARPOL Protocol and present Coast Guard regulations, are currently applied to new vessels of 20,000 DWT or more. The Coast Guard believes they constitute an appropriate basis for an SBT or CBT standard to apply to existing vessels of 20,000 to 40,000 DWT since these vessels exceed 150 meters in length. However, the Coast Guard realizes that, in retrofitting these older vessels, it may not be practicable to provide ballast tanks to closely meet this standard, and, in some instances, the use of existing tanks will result in appreciably more ballast capacity being provided than is necessary to meet the draft and trim standards. To reduce the loss of capacity in these cases, and to provide some additional flexibility in complying with the standards, the Coast Guard is proposing, in paragraph (d), to accept alternative arrangements.

6. The Coast Guard proposes to add a new § 157.24a governing the submission of calculations, plans and specifications for existing vessels installing segregated ballast tanks. This section creates a plan submittal requirement for vessels that install SBT as a means of complying with § 157.10c and for other vessels which may retrofit SBT to comply with 33 CFR Part 157. The Coast Guard believes that the data specified in the proposed rule should be submitted to ensure that each SBT system meets the applicable requirements and, perhaps more importantly, that the safety of the vessel will not be adversely compromised through the fitting of the SBT system. Of particular concern are longitudinal strength (resistance to buckling or breaking), stability and buoyancy (particularly the capability to

remain afloat after damage). Many vessels of 20,000 to 40,000 DWT were designed to operate in either a full load condition or a ballast condition. It is probable that neither the longitudinal strength nor stability was examined by the designers of these vessels for operation in a near full load condition, such as the vessel will be operating after the fitting of SBT. To be assured that compliance with these proposed standards for SBT does not, inadvertently, increase the risk of catastrophic loss of vessels, the Coast Guard is asking for documentation, calculations, or revised stability and loading information which demonstrate that these conditions are acceptable. On foreign flag vessels the Coast Guard proposes in § 157.24a (b)(1) and (c)(1) that the information regarding the acceptability of the vessel loading and stability characteristics take the form of a single document from the authority assigning the vessel's load line which finds the SBT location acceptable.

In § 157.24a(a) (3) and (4), the Coast Guard proposes to include a requirement that, for U.S. vessels, consideration be given to the vessels' stability and longitudinal strength by including applicable standards from Parts 32 and 42 of Title 46, Code of Federal Regulations. The regulations in the rules for tank vessels and the load line regulations, 46 CFR Subchapters D and E, already require that consideration be given to the effect on vessel stability and longitudinal strength of a modification to that vessel. In monitoring the installation of SBT and CBT on existing vessels of over 40,000 DWT to comply with other provisions of the PTSA, the Coast Guard has found that some vessel owners gave consideration to these areas only after having been alerted to possible problems by the Coast Guard. Resolution of those problems resulted in unnecessary contention between the vessel owner and the Coast Guard, potentially costly modification to shipyard plans, and delay of the vessels involved. The Coast Guard is proposing these requirements in 33 CFR Part 157 in the hope that shipyards and vessel owners will give early consideration to the potential impact of the installation of SBT on both the longitudinal strength and stability of a vessel so that unnecessary delays and conflicts can be avoided.

The Coast Guard and ABS have traditionally worked together in assessing the adequacy of stability and longitudinal strength of U.S. tank vessels. On those vessels where near full-load conditions were considered in

the vessel design, further engineering work may not be necessary since acceptable documentation may already be available. This takes the form of a Coast Guard approved trim and stability booklet showing those conditions and an ABS approved loading manual showing acceptable hull stresses in those conditions. On vessels where these conditions were not considered in the original design, the development of engineering calculations to demonstrate acceptability of these conditions would be necessary. The owners of these latter vessels should be aware that the selection of the SBT tanks in these vessels may be critical—selection of tankage without due consideration of its effects on vessel damaged stability may result in rigid restrictions being placed in the loading manual or trim and stability booklet to ensure that the vessel would operate in compliance with the standards.

There is a potential offsetting factor. Since the installation of SBT will result in a capacity loss, most of the modified vessels will not be capable of loading enough cargo to submerge to their maximum permitted load line drafts. Reducing the deadweight of the vessel by reducing the load line draft to correspond to the actual full load condition may, in some cases, ease compliance with the stability requirements.

7. It is proposed to revise § 157.35, which deals with the ballasting of cargo tanks, to clarify its applicability and to include reference to the new § 157.10c.

8. Sections 157.100, 157.102, 157.108, and 157.110, which pertain to the submission of plans for COW systems, would be revised to include reference to § 157.10c. In addition, the recent address changes for the Coast Guard field technical offices, shown in the proposed text, would be rectified in § 157.100(b).

9. Section 157.116, now requiring certain documents for U.S. tank vessels, would be revised to incorporate reference to § 157.10c and to allow a CS to issue the required documents and certifications as well as the Coast Guard. The effective dates by which these documents are required would be removed because the Coast Guard has determined that inclusion of these dates for U.S. vessels is not necessary and is unnecessarily cumbersome since the dates are included in the equipment requirements in §§ 157.10, 157.10a(a)(2), and 157.10c(B)(2), which are referenced.

10. Section 157.118, now requiring documents for foreign tank vessels, would be revised by deleting the effective compliance dates since those dates have already passed, renumbering, and adding a new

paragraph to the regulation concerning vessels under § 157.10c(b)(2). This new paragraph would allow documents to be issued by any one of three sources; the Coast Guard, an authorized CS, or the government of the vessel's flag state. The existing regulation for larger vessels and new vessels has not been revised to include acceptance of documents from an authorized CS. These requirements originate from the MARPOL Protocol, and under the MARPOL Protocol, an International Oil Pollution Prevention (IOPP) Certificate will eventually be issued to these vessels by their flag state; however some flag state governments may authorize a CS to issue this document on their behalf. Since the new standards in § 157.10c are based on a unilateral action by the U.S., they are not governed by the MARPOL Protocol; hence, there would be no flag state documentation of compliance with an international standard paralleling the U.S. standard under the PTSA.

Therefore, the Coast Guard is proposing to accept documents issued by an authorized CS for the existing foreign vessels of 20,000 to 40,000 DWT.

11. It is proposed to amend §§ 157.124, 157.128, 157.130, 157.132, 157.136, 157.140, 157.152, 157.154, 157.156, 157.160, 157.162, 157.164, 157.166 and 157.172 which contain the design, equipment, installation, inspection, personnel and operating requirements for COW systems to include references to § 157.10c. These amendments would extend these standards to existing vessels of 20,000 to 40,000 DWT which install COW to comply with § 157.10c. In addition, the phone number for contacting the Environmental Protection Agency in the Note following § 157.166 would be updated.

12. For the same reasons as discussed in paragraph 6, the Coast Guard proposes to amend § 157.200 by adding the requirement for submission of documents showing compliance with stability and loading standards for U.S. tank vessels installing CBT. The Coast Guard also proposes to remove the effective compliance dates from this section and revise the mailing addresses for field technical offices.

13. Sections 157.202, 157.206, and 157.208, which contain procedures for submission of plans and documents relating to CBT installations, would be revised to incorporate references to § 157.10c.

14. The Coast Guard proposes to amend 157.214 by inserting reference to § 157.10c.

15. Section 157.216, specifying certain documents for foreign vessels with CBT, would be amended in a manner parallel

to the changes to § 157.118 discussed in paragraph 10.

16. Sections 157.225, 157.226 and 157.228, concerning operation of tank vessels with CBT, would be revised to incorporate references to § 157.10c.

17. The Coast Guard proposes to extend to the vessels under § 157.10c the "specific trade" exemptions presently provided in Subpart F by amending §§ 157.300 and 157.310. Under the provisions of this revised regulation most U.S. vessels currently in the domestic trade could be exempted from the requirement to provide SBT, CBT, or COW. The Coast Guard proposes to exempt these vessels if they (1) load cargo oil only in those ports where there are adequate reception facilities for the processing of all oily ballast discharges from these vessels; and (2) the vessels discharge oily water only to those reception facilities.

18. Sections 157.144, 157.147 and 157.302(a) would be revised to reflect an organizational change within the Coast Guard's Office of Merchant Marine Safety, in which the responsibility for the administration of 33 CFR Part 157 was transferred by the Commandant from the Merchant Marine Technical Division (G-MMT) to the Merchant Vessel Inspection Division (G-MVI).

19. Sections 157.03, 157.04, 157.07, 157.24, 157.118 and 157.216 of the existing and proposed regulations contain references to the MARPOL Protocol or specific regulations contained therein. These references are not directly related to the implementation of 46 U.S.C. 3705(c) and 3706(d), nor do they expand the scope of the present rules. They have been included in this rulemaking to facilitate administration of the Coast Guard's pollution prevention program. Section 157.03 includes a definition of the MARPOL Protocol. As explained above, the reference to the MARPOL Protocol in § 157.07 is proposed as a means to free the Coast Guard to consider equivalents in other areas. The remaining references to the MARPOL Protocol are intended to reduce duplication, permit greater flexibility and reduce the burden on vessel owners by permitting foreign governments to certify compliance with the accepted international standards where they parallel the Coast Guard regulations. This reduces duplication of effort since most of these governments will be certifying their vessels under the MARPOL Protocol. It reduces the burden on foreign vessel owners and shipyards since they are more familiar with, and have more ready access to,

the IMO standards than the U.S. regulations.

The Act to Prevent Pollution from Ships provides implementing legislation for the MARPOL Protocol. The Act became effective when the MARPOL Protocol entered into force on October 2, 1983. As of that date, the MARPOL Protocol became a U.S. treaty in force; as such, reference in the CFR to the MARPOL Protocol does not constitute an incorporation by reference.

Regulatory Evaluation and Environmental Impact Statement

These proposed regulations are being evaluated under Executive Order 12291, "Federal Regulation," dated February 17, 1981, and Department of Transportation Order 2100.5, "Policies and Procedures for Simplification, Analysis and Review of Regulations," dated May 22, 1980. The initial estimated cost of the standards was in excess of \$100 million annually. Subsequent examination of these costs suggests that the costs may be substantially lower. The proposal is still considered to be a "major rule" under E.O. 12291 because of the economic impact the statutory standards imposed upon the tanker industry. In addition, the proposal is considered a "significant" rule under DOT Order 2100.5 and, pursuant to that order a regulatory evaluation has been prepared. The Office of Management and Budget has cleared this NPRM for publication without a Regulatory Impact Analysis (RIA) in the light of the mandated compliance date of January 2, 1986. The Coast Guard will issue the RIA with the final rule. Respondents should provide comments on the anticipated costs and benefits based on the regulatory evaluation. Additionally, since implementation of the mandated standards will have an effect on the environment, the Coast Guard has decided to prepare an environmental impact statement. To reduce duplication and paperwork these documents, as well as the required initial Regulatory Flexibility Analysis (discussed below), have been combined into a single document.

Copies of the combined preliminary regulatory evaluation and draft environmental impact statement (DEIS/RE) are being sent to individuals, companies, and environmental groups that have commented on previous similar regulatory proposals, to state clearinghouses and to other federal agencies having jurisdiction or special expertise in related areas. A copy will also be sent, on request, to anyone who desires to review or comment on the DEIS/RE. The procedure to obtain a

copy of the DEIS/RE is given in "ADDRESSES" above. Comments on the content and accuracy of the DEIS/RE, particularly on the key assumptions used in projecting the costs of implementing the rule, are desired by the Coast Guard and may be submitted to the address given above for the submission of comments.

The bulk of the DEIS/RE was prepared in 1981, and includes an estimate of the cost of the mandated standards based on market conditions that existed during the period from 1978 to 1980.

In the fall of 1983, a supplement analysis was prepared to take into consideration more current tanker market conditions. This analysis used a methodology consistent with the earlier cost estimate, but revised the total tanker capacity requirements to reflect the fact that the number of U.S. tankers in active service in the fall of 1983 of 20,000 to 40,000 DWT was about half the number on which the original earlier estimates were based, and that the probable fate of a number of currently idle tankers would be to provide the additional capacity necessitated by the fitting of SBT or CBT. The supplemental analysis concludes that it is possible that no additional tanker construction will be necessitated by implementation of the mandated standards.

On the basis of the above, it is estimated that the total cost of the statutory standards is about 525 million dollars. However, if capacity requirements were to increase, or if a substantial proportion of the idle tankers proved unsuitable for service, some additional new tanker construction might be required and the total cost of the standards would rise accordingly.

The direct benefits, as derived in the DEIS/RE, are presented in terms of reduced operation oil pollution from tank vessels of 20,000 to 40,000 DWT. The total reductions are estimated at about 38,000 metric tons from foreign vessels and 69,000 metric tons from U.S. vessels. These reductions stem primarily from reducing oil discharges during deballasting of cargo tanks and tank cleaning. The areas where the discharges occur are generally areas of open ocean, although some areas of coastal ocean may be affected. The Coast Guard believes that the effect of these standards on reducing oil pollution will be greatest during the decade from 1990 to 2000 and will gradually be reduced thereafter as the existing vessels affected by these regulations are retired from service.

In the analysis we have not placed dollar values on the benefits because of the complexity and subjective nature of such an assessment. As a result, no "net" cost/benefit figure is available. Moreover, and most importantly, we wish to stress that, regardless of what assumptions are used, regardless what our cost estimates are, and regardless of any value assigned to benefits, the requirements we are analyzing are specifically mandated by 46 U.S.C. 3705(c) and 3706(d). In addition, we believe a significant portion of the estimated cost may already have been committed by industry in direct response to the PTSA.

Regulatory Flexibility Act

The proposed rules are being evaluated under Pub. L. 96-354 (94 Stat. 1165, 5 U.S.C. 601) to determine if they will have a significant impact on a substantial number of small entities. An initial regulatory flexibility analysis has been incorporated into the DEIS/RE. The Coast Guard believes that implementing the standards may cause those businesses with substantial portions of their operating equipment in older vessels of 20,000 to 40,000 DWT to go out of business if they are unable to finance required vessel modifications or are unwilling to assume the financial risks of such modifications. However, implementing the standards could stimulate competition by creating market conditions which would permit new companies with new vessels, which can be operated more efficiently but are burdened with high capital costs, to compete effectively with those established companies that have low capital costs but operate older, less efficient, existing vessels.

Sections 3705(c) and 3706(d) of the U.S. Code do not grant to the Coast Guard the discretionary authority to alter these impacts through the establishment of differing compliance requirements or time tables for small entities or the exemption of small entities by this rule. The proposed rules do not prescribe rigid design features, but permit vessel owners flexibility in retrofitting to comply with the SBT, CBT and COW standards. Based on safety considerations, the Coast Guard does not believe that the establishment of alternative reporting or recordkeeping requirements is justified, nor would such action substantially alter the burden placed on the affected businesses. There are approximately 25 U.S. companies that operate U.S. flag tankships of 20,000 to 40,000 DWT. The Coast Guard has determined that 20 of these companies, operating the vast majority of the U.S.

vessels that would be directly affected by the implementation of the standards, are not small businesses since they are subsidiaries of major oil companies or diversified corporations. The Coast Guard has insufficient data to determine whether any of the remaining companies which operate between 4 and 23 vessels (both tank vessels and cargo vessels), should be considered small entities; however, the Coast Guard does not believe that these rules will have a significant effect on a substantial number of small entities since they only implement statutory standards. Comments from these entities, especially those providing quantifying data, on whether they should be considered a small entity and on the impact of the rules on their business are specifically requested.

Paperwork Reduction Act

The proposed rulemaking contains information collection requirements in the following sections: §§ 157.04, 157.24a, 157.102 and 157.202. These sections require the submission of applications, plans for modifications to vessels, documentation of compliance, and retention of various operating manuals on board vessels. These new reporting and recordkeeping requirements have been submitted to the Office of Management and Budget (OMB) for approval under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). In an effort to reduce the burden of compliance with the standards, the Coast Guard has proposed the alternative of allowing vessel owner to obtain certain third-party certifications. The Coast Guard is interested in receiving any additional comments which would serve to quantify the burdens which are imposed or which would further decrease the burdens of compliance. Specifically, knowledgeable persons are asked to provide recommendations for alternatives to the reporting or recordkeeping requirements or provide estimates of the burden, both in terms of cost and time, which they believe will be imposed by the reporting and recordkeeping requirements of the rules. The Coast Guard has estimated that the proposed rules would impose a total recordkeeping and reporting burden on the public of approximately 48,000 hours with an estimated cost of approximately \$1.15 million (1982 dollars), approximately seventy-five percent of both the hourly burden and cost will be incurred prior to 1987. Persons desiring to comment on these information collection requirements should submit their comments to the Office of Regulatory Policy of OMB, with a copy

to the Coast Guard, at the address listed above under "ADDRESSES".

List of Subjects in 33 CFR Part 157

Cargo vessels, Oil pollution.

PART 157—RULES FOR THE PROTECTION OF THE MARINE ENVIRONMENT RELATING TO TANK VESSELS CARRYING OIL IN BULK

Proposed Regulations

In consideration of the foregoing, the Coast Guard proposes to amend Part 157 of Title 33, Code of Federal Regulations as follows:

1. The authority citation for Part 157 would be revised to read as follows:

Authority: Sec. 4, Pub. L. 96-478, 94 Stat. 2298 (33 U.S.C. 1903); 46 U.S.C. 3703; 49 CFR 1.46 (n) and (hh).

2. By adding a new § 157.04 to read as follows:

§ 157.04 Authorization of classification societies.

(a) The Coast Guard may authorize any classification society (CS) to perform certain plan reviews, certifications, and inspections required by this Part on vessels classed by that CS, except that only U.S. classification societies may be authorized to perform those plan reviews, inspections, and certifications for U.S. vessels.

(b) If a CS desires authorization to perform the plan reviews, certifications, and inspections required under this Part, it must submit to the Commandant (G-MVI), U.S. Coast Guard, Washington, DC 20593, evidence from the governments concerned showing that they have authorized the CS to inspect and certify vessels on their behalf under the MARPOL Protocol.

(c) The Coast Guard notifies the CS in writing whether or not it is accepted as an authorized CS. If authorization is refused, reasons for the refusal are included.

(d) Acceptance as an authorized CS terminates unless the following are met:

(1) The authorized CS must have each Coast Guard regulation that is applicable to foreign vessels on the navigable waters of the United States.

(2) Each issue concerning equivalents to the regulations in this Part must be referred to the Coast Guard for its determination.

(3) Copies of any plans, calculations, records of inspections, or other documents relating to any plan review, inspection, or certification performed to meet this Part must be made available to the Coast Guard.

(4) Each document certified under §§ 157.116(a)(2), 157.118(b)(1)(ii), and

157.216(b)(1)(ii) must be marked with the name or seal of the authorized CS.

(5) A copy of the final documentation that is issued to each vessel that is certified under this Part must be referred to the Commandant (G-MVI), U.S. Coast Guard, Washington, D.C. 20593.

3. By revising § 157.07 to read as follows:

§ 157.07 Equivalents.

The Coast Guard may accept an equivalent, in accordance with the procedure in 46 CFR 30.15-1, of a design or an equipment to fulfill a requirement in this Part except an operational method may not be substituted for a design or equipment requirement that is also required under the MARPOL Protocol.

4. By revising § 157.10a by changing the heading to read as follows:

§ 157.10a Segregated ballast tanks, crude oil washing systems, and dedicated clean ballast tanks for certain new and existing vessels of 40,000 DWT or more.

5. By adding a new § 157.10c to read as follows:

§ 157.10c Segregated ballast tanks, crude oil washing systems and dedicated clean ballast tanks for certain new and existing tankships of 20,000 to 40,000 DWT.

(a) This section applies to each tankship of 20,000 DWT or more, but less than 40,000 DWT, except each one that—

(1) Is constructed under a building contract awarded after June 1, 1979;

(2) In the absence of a building contract, has the keel laid or is at a similar stage of construction after January 1, 1980;

(3) Is delivered after June 1, 1982; or

(4) Has undergone a major conversion, for which—

(i) The contract is awarded after June 1, 1982; or

(ii) Conversion is completed after June 1, 1982.

(b) Not later than January 1, 1986, or 15 years after the date it was delivered to the original owner, whichever is later, a vessel under this section that carries crude oil must have—

(1) Segregated ballast tanks that have a total capacity to allow the vessel to meet the draft and trim requirements in § 157.09(b); or

(2) A crude oil washing system that meets the design, equipment, and installation requirements of §§ 157.122 through 157.138.

(c) Not later than January 1, 1986, or 15 years after the date it was delivered to the original owner, whichever is later,

a vessel under this section that carries product must have—

(1) Segregated ballast tanks that have a total capacity to allow the vessel to meet the draft and trim requirements in § 157.09(b); or

(2) Dedicated clean ballast tanks that meet the design and equipment requirements under §§ 157.220, 157.222, and 157.224 and have total capacity to allow the vessel to meet the draft and trim requirements in § 157.09(b).

(d) If the arrangement of tanks on a vessel under this section is such that, when using the tankage necessary to comply with the draft and trim requirements in § 157.09(b), the draft amidships exceeds the minimum required draft by more than 10 percent, or the arrangement results in the propeller being fully immersed by more than 10 percent of its diameter, alternative arrangements may be accepted provided—

(1) At least 80 percent of the propeller diameter is immersed, and

(2) The moulded draft amidships is at least 80 percent of that specified in § 157.09(b)(1).

6. By adding a new § 157.24a to read as follows:

§ 157.24a Submission of calculations, plans and specifications for existing vessels installing segregated ballast tanks.

(a) Before modifications are made to a U.S. tank vessel to meet § 157.10a(a)(1), § 157.10a(c)(1), § 157.10c(b)(1), or § 157.10c(c)(1), the vessel's owner or operator must submit the following to the Officer in Charge, Marine Inspection of the zone where the modification will be made or to the appropriate Coast Guard technical office listed in § 157.100(b):

(1) A drawing or diagram of the pumping and piping system for the segregated ballast tanks.

(2) A drawing of the segregated ballast tank arrangement.

(3) Documentation, calculations, or revised stability information to show that the vessel, with the addition of the segregated ballast tanks, meets the stability standards for load line assignment in 46 CFR Part 42.

(4) Documentation, calculations, or a revised loading manual to show that the vessel, with the addition of the segregated ballast tanks, meets the structural standards in 46 CFR Part 32.

(5) Plans and calculations to show that the vessel, as modified, complies with the segregated ballast capacity and distribution requirements in § 157.10a.

(b) Before each foreign vessel under § 157.10a(a)(1) or § 157.10a(c)(1) enters the navigable waters of the United States the owner or operator of that

vessel, except those under subparagraph (3) of this paragraph, must submit to the Commandant (G-MVI), U.S. Coast Guard, Washington, D.C. 20593—

(1) A letter from the authority that assigns the load line to the vessel finding that the location of the segregated ballast tanks is acceptable; and

(2) Plans and calculations to substantiate compliance with the segregated ballast capacity requirements in § 157.09(b); or

(3) Submit to the Officer in Charge, Marine Inspection of the zone in which the first U.S. port call is made a letter or document from the government of the vessel's flag state certifying that the vessel complies with the segregated ballast capacity requirements in § 157.09(b) or Regulation 13 of the MARPOL Protocol.

(c) On and after January 1, 1986, or 15 years after the date it was delivered to the original owner, whichever is later, the owner or operator of an existing foreign vessel under § 157.10c(b)(1) or § 157.10c(c)(1), except those under subparagraph (3) of this paragraph, must submit to the Commandant (G-MVI), U.S. Coast Guard, Washington, D.C. 20593, before that vessel enters the navigable waters of the United States—

(1) A letter from the authority that assigns the load line to the vessel finding that the location of the segregated ballast tanks is acceptable; and

(2) Plans and calculations to substantiate compliance with the applicable segregated ballast capacity requirements in § 157.09(b) or § 157.10c(d); or

(3) Submit to the Officer in Charge, Marine Inspection of the zone in which the first U.S. port call is made a letter from an authorized CS or the government of the vessel's flag state certifying that the vessel complies with the segregated ballast capacity requirements in § 157.09(b) or § 157.10c(d).

7. By revising the introductory text in § 157.35 to read as follows:

§ 157.35 Ballast added to cargo tanks.

The master of a tank vessel with segregated ballast tanks or dedicated clean ballast tanks under § 157.09, § 157.10, § 157.10a(a)(1), § 157.10a(b), § 157.10a(c), § 157.10b(a), § 157.10c(b)(1), or § 157.10c(c) shall ensure that ballast water is carried in a cargo tank only if—

8. By revising §§ 157.100 (a) introductory text, (b)(3), and (b)(5) to read as follows:

§ 157.100 Plans for U.S. tank vessels: Submission.

(a) Before each U.S. tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) is inspected under § 157.140, the owner or operator of that vessel must submit to the Coast Guard plans that include—

(b) * * *

(3) Commander, 8th Coast Guard District (mmt), Room 845, F. Edward Hebert Federal Building, 600 South Street, New Orleans, LA 70130, for the 2nd, 7th and 8th Coast Guard Districts.

(5) Commander, 12th Coast Guard District (mmt), Government Island, Alameda, CA 94501, for the 11th, 12th, 13th, 14th, and 17th Coast Guard Districts.

9. By revising the introductory text in § 157.102 to read as follows:

§ 157.102 Plans for foreign tank vessels: Submission.

If the owner or operator of a foreign tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) desires the letter from the Coast Guard under § 157.106 accepting the plans submitted under this paragraph, the owner or operator must submit to the Commandant (G-MVI), U.S. Coast Guard, Washington, DC 20593, plans that include—

10. By revising § 157.108 to read as follows:

§ 157.108 Crude Oil Washing Operations and Equipment Manual for U.S. tank vessels: Submission.

Before each U.S. tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) is inspected under § 157.140, the owner or operator of that vessel must submit two copies of a *Crude Oil Washing Operations and Equipment Manual* that meets § 157.138 to the Officer in Charge, Marine Inspection, of the zone in which the COW system is installed or to the appropriate Coast Guard field technical office listed in § 157.100(b).

11. By revising § 157.110 to read as follows:

§ 157.110 Crude Oil Washing Operations and Equipment Manual for foreign tank vessels: Submission.

If the owner or operator of a foreign tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) desires a Coast Guard approved *Crude Oil Washing Operations and Equipment Manual* under § 157.112, the owner or operator

must submit two copies of a manual that meets § 157.138 to the Commandant (G-MVI), U.S. Coast Guard, Washington, DC 20593.

12. By revising § 157.116 to read as follows:

§ 157.116 Required documents: U.S. tank vessels.

The owner, operator, and master of a U.S. tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that the vessel does not engage in a voyage unless the vessel has on board the following:

(a) A *Crude Oil Washing Operations and Equipment Manual* that—

(1) Is approved under § 157.121; or
(2) Bears a certification by an authorized CS that the manual contains the information required under § 157.138.

(b) Evidence of acceptance of the tank vessel's COW system consisting of—

(1) A document from an authorized CS that certifies the vessel meets § 157.10c(b)(2) and each amending letter by the authorized CS approving changes in the design, equipment, or installation; or

(2) The letter of acceptance under § 157.106 and each amending letter issued under § 157.158(c).

(c) Evidence that the COW system passed the required inspections by—

(1) A document from an authorized CS that the vessel has passed the inspections under § 157.140; or

(2) The letter of acceptance under § 157.142 after passing the inspection under § 157.140.

13. By revising § 157.118 to read as follows:

§ 157.118 Required documents: Foreign tank vessels.

(a) The owner, operator, and master of a foreign tank vessel under § 157.10(e) or § 157.10a(a)(2) shall ensure that the vessel does not enter the navigable waters of the United States or transfer cargo at a port or place subject to the jurisdiction of the United States unless the vessel has on board—

(1) A *Crude Oil Washing Operations and Equipment Manual* that—

(i) Is approved under § 157.112; or
(ii) Meets the manual standards in Resolution 15 of the MARPOL Protocol and bears the approval of the government of the vessel's flag state; and

(2) Either—

(i) A document from the government of the vessel's flag state that certifies that the vessel complies with Resolution 15 of the MARPOL Protocol; or

(ii) The following letters issued by the Coast Guard:

(A) The letter of acceptance under § 157.106.

(B) The letter of acceptance under § 157.142 after passing the inspection under § 157.140.

(C) Each amending letter issued under § 157.158(c).

(b) On and after January 1, 1986, or 15 years after the date it was delivered to the original owner, whichever is later, the owner, operator, and master of a foreign vessel having a COW system under § 157.10c(b)(2) shall ensure that the vessel does not enter the navigable waters of the United States or transfer cargo at a port or place subject to the jurisdiction of the United States unless the vessel has on board—

(1) A *Crude Oil Washing Operations and Equipment Manual* that—

(i) Is approved under § 157.112; or
(ii) Bears a certification by an authorized CS or the government of the vessel's flag state that the manual contains the information required under § 157.138;

(2) Evidence that the COW system passed the required inspections by—

(i) A document from an authorized CS or the government of the vessel's flag state certifying that the vessel passed the inspections under § 157.140; or
(ii) The letter of acceptance under § 157.142 after passing the inspection under § 157.140; and

(3) Either—

(i) A document from an authorized CS or the government of the vessel's flag state certifying that the vessel complies with the design, equipment and installation standards in §§ 157.122 through 157.136 and any amending letters approving changed COW system characteristics; or
(ii) The letter of acceptance under § 157.106 and any amending letters issued under § 157.158(c).

14. In § 157.124 by revising paragraph (f) introductory text to read as follows:
§ 157.124 COW tank washing; machines.

(f) Each cargo tank on a vessel having a COW system under § 157.10a(a)(2) or § 157.10c(b)(2) with complicated internal structural members does not have to meet paragraph (e) of this section if the following areas of each cargo tank are washed by direct impingement and the tank vessel can pass the inspections under § 157.140:

• • • • •

15. By revising paragraph (a) introductory text of § 157.128 to read as follows:

§ 157.128 Stripping system.

Each tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) must have a stripping

system that is designed to remove crude oil from—

• • • • •

16. By revising § 157.130 to read as follows:

§ 157.130 Crude oil washing with more than one grade of crude oil.

If a tank vessel having a COW system under §§ 157.10(e), 157.10a(a)(2), or 157.10c(b)(2) carries more than one grade of crude oil, the COW system must be capable of washing the cargo tanks with the grades of crude oil that the vessel carries.

17. By revising the introductory text of § 157.132 to read as follows:

§ 157.132 Cargo tanks: Hydrocarbon vapor emissions.

Each tank vessel having a COW system under § 157.10a(a)(2) or § 157.10c(b)(2) without sufficient segregated ballast tanks or dedicated clean ballast tanks to allow the vessel to depart from any port in the United States without ballasting cargo tanks must have—

• • • • •

18. By revising § 157.136 to read as follows:

§ 157.136 Two-way voice communications.

Each tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) must have a means that enables two-way voice communications between the main deck watch required under § 157.168 and each cargo discharge control station.

19. By revising paragraph (b) introductory text of § 157.138 to read as follows:

§ 157.138 Crude Oil Washing Operations and Equipment Manual.

• • • • •

(b) In addition to meeting paragraph (a) of this section, each *Crude Oil Washing Operations and Equipment Manual* on a tank vessel having a COW system under § 157.10a(a)(2) or § 157.10c(b)(2) must include the following:

• • • • •

20. By revising the introductory text of paragraph (a) of § 157.140 to read as follows:

§ 157.140 Tank vessel inspections.

(a) Before issuing a letter under § 157.142, the Coast Guard makes an initial inspection of each U.S. tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) and each foreign tank vessel whose owner or operator submitted the plans under § 157.102 to

determine whether or not, when entering a port, the cargo tanks that carry crude oil meet the following:

21. By revising the introductory text of § 157.152 to read as follows:

§ 157.152 Person in charge of COW operations.

The owner, operator, and master of a tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that the person designated as the person in charge of COW operations—

22. By revising the introductory text of § 157.154 to read as follows:

§ 157.154 Assistant personnel.

The owner, operator, and master of a tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that each member of the crew that has a designated responsibility during COW operations—

23. By revising the introductory text of both paragraphs (a) and (b) of § 157.155 as follows:

§ 157.155 COW operations: General.

(a) The master of a tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that—

(b) In addition to meeting paragraph (a) of this section, the master of a tank vessel having a COW system under § 157.10a(a)(2) or § 157.10c(b)(2) shall ensure that—

24. By revising the introductory text of § 157.156 to read as follows:

§ 157.156 COW operations: Meeting manual requirements.

Except as allowed in § 157.158, the master of a foreign tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) that has a *Crude Oil Washing Operations and Equipment Manual* approved under § 157.112 and is operating in the navigable waters of the United States or transferring cargo at a port or place subject to the jurisdiction of the United States and the master of a U.S. tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that during each COW operation—

25. By revising paragraph (b) introductory text of § 157.160 to read as follows:

§ 157.160 Tanks: Ballasting and crude oil washing.

(b) The owner, operator, and master of a tank vessel having a COW system under § 157.10a(a)(2) or § 157.10c(b)(2) shall ensure that—

26. By revising the introductory text of § 157.162 to read as follows:

§ 157.162 Crude oil washing during a voyage.

The master of a tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that each cargo tank that is crude oil washed during a voyage other than a ballast voyage—

27. By revising paragraph (a) introductory text of § 157.164 to read as follows:

§ 157.164 Use of inert gas system.

(a) The master of a tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure the following:

28. By revising § 157.166 to read as follows:

§ 157.166 Hydrocarbon vapor emissions.

If the tank vessel having a COW system under § 157.10a(a)(2) or § 157.10c(b)(2) transfers cargo at a port in the United States that is in an area designated in 40 CFR Part 81 as an area that does not meet the national primary ambient air quality ozone standard under 40 CFR Part 50, issued under the Clean Air Act, as amended (42 U.S.C. 1857), the master of the vessel shall ensure that when cargo tanks are ballasted in that port the hydrocarbon vapors in each tank are contained by a means under § 157.132.

Note.—Question relating to whether or not a particular port is located in an area designated in 40 CFR Part 81 as an area that does not meet the national primary ambient air quality standard under 40 CFR Part 50 should be directed to the Plans Analysis Section of the Environmental Protection Agency at (919) 541-5665.

29. By revising § 157.172 to read as follows:

§ 157.172 Limitations on grades of crude oil carried.

If a tank vessel having a COW system meeting § 157.10a(a)(2) or § 157.10c(b)(2) does not have segregated ballast tanks or dedicated clean ballast tanks that meet § 157.10c(c)(2), the owner, operator, and master shall ensure that the vessel carries only the grades of

crude oil that can be used for crude oil washing.

30. By revising paragraph (a), (b)(3), and (b)(5) of § 157.200 to read as follows:

§ 157.200 Plans for U.S. tank vessels: Submission.

(a) Before modifications are made to a U.S. vessel to meet § 157.10a(b), § 157.10b(a)(2), § 157.10a(c)(2), or § 157.10c(c)(2) the owner or operator must submit to the Coast Guard plans or documents that include the following:

(1) The dedicated clean ballast tank arrangement.

(2) Documentation, calculations, or revised stability information to show that the vessel, with the addition of the dedicated clean ballast tanks, meets the stability standards for load line assignment in 46 CFR Part 42.

(3) Documentation, calculations, or a loading manual to show that the vessel, with the addition of the dedicated clean ballast tanks, meets the structural standards in 46 CFR Part 32.

(4) A drawing or diagram of the pumping and piping system for the dedicated clean ballast tanks.

(b) * * *

(3) Commander, 8th Coast Guard District (mmt), Room 845, F. Edward Hebert Federal Building, 600 South Street, New Orleans, LA 70130, for the 2nd, 7th and 8th Coast Guard Districts.

(5) Commander, 12th Coast Guard District (mmt), Government Island, Alameda, CA 94501, for the 11th, 12th, 13th, 14th and 17th Coast Guard Districts.

31. By revising the introductory text of § 157.202 to read as follows:

§ 157.202 Plans and documents for foreign tank vessels: Submission.

The owner or operator of a foreign tank vessel under § 150.10a(b), § 157.10a(c)(2), or § 157.10b(a)(2) who desires the letter from the Coast Guard under § 157.204 accepting the plans submitted under this paragraph, and the owner or operator of a foreign tank vessel under § 150.10c(c)(2) must submit to the Commandant (G-MVI), U.S. Coast Guard, Washington, D.C. 20593—

32. By revising § 157.206 to read as follows:

§ 157.206 Dedicated Clean Ballast Tanks Operations Manual for U.S. tank vessels: Submission.

The owner or operator of a U.S. tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) must submit two copies

of a *Dedicated Clean Ballast Tanks Operations Manual* that meets § 157.224 to the Officer in Charge, Marine Inspection, of the zone in which the dedicated clean ballast tank system is installed or to the appropriate Coast Guard field technical office listed in § 157.200(b).

33. By revising § 157.208 to read as follows:

§ 157.208 Dedicated Clean Ballast Tanks Operations Manual for foreign tank vessels: Submission.

If the owner or operator of a foreign tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) desires a Coast Guard approved *Dedicated Clean Ballast Tanks Operations Manual* under § 157.210, the owner or operator must submit two copies of a manual that meets § 157.224 to the Commandant (G-MVI), U.S. Coast Guard, Washington, D.C. 20593.

34. By revising the introductory text of § 157.214 to read as follows:

§ 157.214 Required documents: U.S. tank vessels.

The owner, operator, and master of a U.S. tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) shall ensure that the vessel does not engage in a voyage unless the vessel has on board—

* * *

35. By revising § 157.216 to read as follows:

§ 157.216 Required documents: Foreign tank vessels.

(a) The owner, operator, and master of a foreign tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) shall ensure that the vessel does not enter the navigable waters of the United States or transfer cargo at a port or place subject to the jurisdiction of the United States unless the vessel has on board—

(1) A *Dedicated Clean Ballast Tank Operations Manual* that—

(i) Is approved under § 157.210; or
(ii) Is certified by the government of the vessel's flag state because it meets the manual standards in Resolution 14 of the MARPOL Protocol; and

(2) Either—

(i) A letter from the government of the vessel's flag state that certifies that the vessel with Resolution 14 of the MARPOL Protocol; or

(ii) The letter of acceptance under § 157.204 and each amending letter issued under § 157.218(c).

(b) On and after January 1, 1986, or 15 years after the date it was delivered to the original owner, the owner, operator, and master of a foreign tank vessel under § 157.10c(b)(2) shall ensure that the vessel does not enter the navigable waters of the United States or transfer cargo at a port or place subject to the jurisdiction of the United States unless the vessel has on board—

(1) A *Dedicated Clean Ballast Tank Operations Manual* that—

(i) Is approved under § 157.210; or
(ii) Bears a certification by an authorized CS or the government of the vessel's flag state that the manual meets § 157.224; and

(2) either—

(i) A letter from an authorized CS or the government of the vessel's flag state certifying the vessels complies with §§ 157.220 and 157.222, and any amending letters issued approving alterations; or

(ii) the letter of acceptance under § 157.204 and each amending letter issued under § 157.218.

36. By revising the introductory text of § 157.225 to read as follows:

§ 157.225 Dedicated clean ballast tanks operations: General.

The master of a tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) shall ensure that—

* * *

37. By revising § 157.226 to read as follows:

§ 157.226 Dedicated Clean Ballast Tanks Operations Manual: Procedures to be followed.

The master of a foreign tank vessel meet § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) that has a *Dedicated Clean Ballast Tanks Operations Manual* approved under § 157.210 and is operating in the navigable waters of the United States or transferring cargo at a port or place subject to the jurisdiction of the United States and the master of a U.S. tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a), or § 157.10c(c)(1) shall ensure that the procedures listed in the *Dedicated Clean Ballast Tanks Operations Manual* are followed.

38. By revising § 157.228 to read as follows:

§ 157.228 Isolating valves: Closed during a voyage.

(a) The master of each U.S. tank vessel under § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2) or § 157.10c(c)(2) shall ensure that the valves under § 157.222 remain closed during each voyage.

(b) The master of each foreign tank vessel meeting § 157.10a(b), § 157.10a(c)(2), § 157.10b(a)(2), or § 157.10c(c)(2) shall ensure that the valves under § 157.222(d) remain closed when the vessel is on a voyage in the navigable waters of the United States.

39. By revising the heading of Subpart F to read as follows:

Subpart F—Exemption From § 157.10a or § 157.10c

* * *

40. By revising paragraph (a) introductory text of § 157.300 to read as follows:

§ 157.300 Qualifications for exemptions under this part.

(a) Each vessel under § 157.10a or § 157.10c of this part may qualify for an exemption from the requirements of § 157.10a or § 157.10c of this part if—

* * *

41. By revising paragraph (f) of § 157.310 to read as follows:

§ 157.310 Exempted vessels: operations.

* * *

(f) The certificate of inspection bearing the following endorsement is on board the vessel.

Exempted under 33 CFR 157.306 from the requirements of (33 CFR 157.10a or 157.10c, whichever is appropriate, will be inserted). This vessel may not discharge cargo in any foreign port, nor may it load cargo in a port other than the following: (a list of ports contained in the application that is accepted by the Coast Guard for the exempted vessel will be inserted here).

§§ 157.144, 157.147 and 157.302 [Amended]

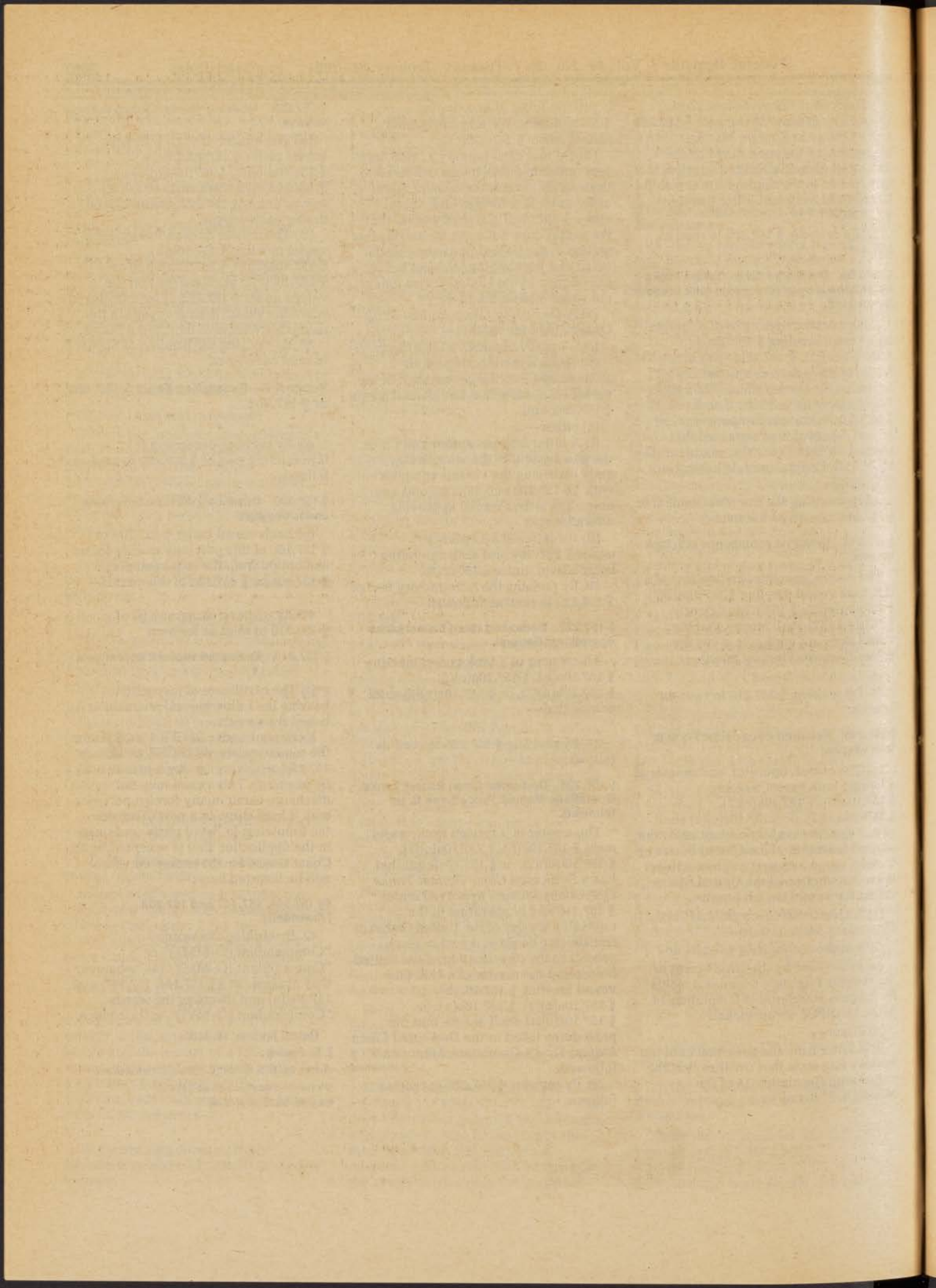
42. By striking the words "Commandant (G-MMT)" or "Commandant (G-MMT/13)" wherever they appear in §§ 157.144, 157.147, and 157.302(a) and inserting the words "Commandant (G-MVI)" in their place.

Dated: January 18, 1984.

J. S. Gracey,
Admiral, U.S. Coast Guard Commandant.

[FR Doc. 84-1860 Filed 1-23-84; 8:45 am]

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Part III

Environmental Protection Agency

40 CFR Part 86

Standards for Emission of Particulate
Matter From Diesel-Powered Light-Duty
Vehicles and Light-Duty Trucks and
Technical Amendment to Emission
Regulations for Light-Duty Vehicles,
Light-Duty Trucks, and Heavy-Duty
Engines; Final Rule

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 86**

[AMS-FRL 2473-1]

Standards for Emission of Particulate Matter From Diesel-Powered Light-Duty Vehicles and Light-Duty Trucks and Technical Amendment to Emission Regulations for Light-Duty Vehicles, Light-Duty Trucks, and Heavy-Duty Engines**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

SUMMARY: This action delays for two years the effective date of the particulate emission standards for diesel-powered light-duty vehicles and light-duty trucks (light-duty diesels) that were scheduled for the 1985 model year. The less stringent diesel particulate standards which became effective with the 1982 model year will continue in effect through the 1986 model year for these light-duty diesels. The delay is necessary to provide adequate leadtime for manufacturers to complete development and testing of trap-oxidizer systems which will be required by a portion of the light-duty diesel fleet in order to meet the more stringent standards.

This action also delays until the 1987 model year the diesel particulate emissions averaging program which was designed to coincide with the more stringent particulate standards.

Finally, the Agency is taking this opportunity to make four technical amendments to other unrelated motor vehicle regulations. Three of these amendments consist of minor corrections to the high-altitude emission control requirements for light-duty motor vehicles beginning in the 1984 model year. The last amendment eliminates a duplicative provision from the regulations affecting 1984 and later model year heavy-duty engines.

DATES: This Final Rule is effective January 24, 1984.

ADDRESSES: Copies of material relevant to this rulemaking are contained in Public Docket No. A-82-32 at the U.S. Environmental Protection Agency, West Tower Lobby, Gallery I, 401 M Street, SW., Washington, D.C. 20460. The docket may be inspected between 8 a.m. and 4 p.m. on weekdays. As provided in 40 CFR Part 2, a reasonable fee may be charged for photocopying.

FOR FURTHER INFORMATION CONTACT: Mr. Richard S. Wilcox, Emission Control Technology Division, U.S.

Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, MI 48105, (313) 668-4390.

SUPPLEMENTARY INFORMATION:**I. Background***A. Promulgation of the Original Light-Duty Diesel Particulate Program*

On March 5, 1980, EPA published a final rule which promulgated a diesel particulate standard of 0.60 gram per mile (g/mi) beginning in the 1982 model year for both light-duty vehicles (LDVs) and light-duty trucks (LDTs) (45 FR 14496). The final rule also established more stringent standards for 1985 and later model year LDVs and LDTs of 0.20 g/mi and 0.26 g/mi, respectively.

The more stringent particulate standards which were to become effective in the 1985 model year were based on EPA's projections that a new device called a trap-oxidizer would be available for use by the 1985 model year, and that its use would allow even the highest emitting light-duty diesels (LDDs) to meet the more stringent standards. This device is similar in construction to exhaust emission catalysts currently found on nearly all new light-duty gasoline-fueled vehicles, and filters (traps) particulate matter from the diesel exhaust. The trapped particulate material is periodically burned (i.e., the trap is regenerated) since a trap which would be large enough to store all of the particulate matter emitted by diesel engine over its lifetime cannot be practically installed on a vehicle.

B. Proposal to Delay the 1985 Particulate Standards

On April 6, 1981, Vice President Bush announced that, as part of President Reagan's program for the U.S. automobile industry ("Actions to Help the U.S. Auto Industry"), EPA would conduct a study of the technological feasibility of the 1985 particulate standards. Such a study is consistent with Section 202(a)(2) of the Clean Air Act which requires that standards are to "take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology * * *"

Shortly after Vice President Bush's announcement, EPA invited all interested parties to submit new data or information (i.e., information which was not considered in the original rulemaking) for the study. The Agency's analysis of these comments is entitled, "Trap-Oxidizer Feasibility Study," and

was completed in March 1982.¹ This analysis, which is discussed more fully later in this Preamble, formed the basis of EPA's December 1, 1982 proposal to delay the effective date of the 1985 particulate standards until the 1987 model year (47 FR 54250).

Also pertinent to the proposal was the fact that on September 30, 1981, General Motors (GM) petitioned the Administrator, in part, to suspend the 1985 particulate standards, alleging that the standards continued to be technologically infeasible in the leadtime remaining and would effectively preclude production of LDDs in the 1985 model year.² General Motors also raised other issues relating to the allegation that the levels of the 1985 LDD particulate standards were unnecessarily stringent. The proposal to delay the 1985 particulate standards represented a partial grant of GM's petition regarding the technical feasibility of the standards and allowed additional time to consider other issues raised by GM. EPA is continuing to examine other issues such as health needs and relative costs of control as pertinent data are generated.

II. Basis and Contents of the Final Rule*A. Highlights of the Feasibility Study*

The "Trap-Oxidizer Feasibility Study" (hereafter the Feasibility Study) formed the technical basis for the proposed 2-year delay. The analysis in the Feasibility Study continues to be central to this rulemaking, particularly since many of the comments on the proposal were directed specifically to its contents. A detailed summary of the Feasibility Study was included in the proposal (47 FR 54250); only the conclusions which are particularly germane to this final rulemaking will be repeated here.

1. *Status of Development.* The Feasibility Study found that trap-oxidizer development had advanced significantly since the 1985 particulate standards were promulgated. Manufacturers had identified two basic trap designs and were concentrating their research efforts on perfecting these designs. One trap utilized a porous, ceramic honeycomb monolith substrate (hereafter the ceramic monolith trap) similar to the ceramic substrates commonly used in catalytic converters. The second design utilized an alumina-coated wire mesh (hereafter the wire

¹ Available for inspection in EPA Docket No. A-82-32.

² Available for inspection in EPA Docket No. A-82-32.

mesh trap) which was often coated with catalytic material.

Initial results with these traps were very promising. Trapping efficiency and backpressure were judged to be acceptable for both new traps and traps with up to 50,000 miles of use which had been regenerated 50 to 100 times. Although many cases of trap failure had been reported, durability problems were almost always due to excessively high temperatures in the trap during regeneration. Traps had survived up to 50,000 miles when regeneration was properly controlled.

The Feasibility Study identified the principal remaining developmental task to be the integration of a trap design and a workable regeneration mechanism into an automated on-board system. It projected that most future trap-oxidizer research would concentrate on regeneration control systems.

2. *Leadtime.* In analyzing the issue of how much leadtime the industry needed to introduce workable trap-oxidizers, the Feasibility Study found that the overall leadtime required could be divided into two components: Prototype development leadtime and production leadtime. Prototype development culminates in a working model of an entire trap-oxidizer system (with regeneration controls) that is ready for assurance testing. Based on the information available at the time, the Feasibility Study concluded that prototype development would be completed by about January 1983. Production leadtime includes assurance testing to identify possible problems and refine final design, modifications to the vehicle or engine to accept the trap-oxidizer, acquiring production facilities and tooling, and completing emission certification testing. EPA concluded that production leadtime should require between 25 and 33 months. Adding this requirement to the January 1983 date resulted in production-ready traps sometime between February 1985 and October 1985. This led to two important conclusions. One, a delay of the particulate standards beyond 1985 was necessary if diesel production was not to be restricted. Second, it was possible that traps would be feasible for the 1986 model year (if traps were available by August 1985), however the Agency could not be sure that they would be feasible until the 1987 model year (if trap development and production were not completed until after August 1985).

B. Reconsideration of the Feasibility Study's Conclusions

Many comments on the current status of trap-oxidizer development were received in response to the NPRM.

These comments generally included information on manufacturers' progress through the end of 1982. In June 1983, the Agency completed a study based on these comments entitled "An Updated Assessment of the Feasibility of Trap-Oxidizers."³ A second study, "Trap-Oxidizer Technology for Light-Duty Diesel Vehicles: Feasibility, Costs, and Present Status," which was completed on March 20, 1983 under contract to EPA, involves a recent independent analysis of trap development.⁴ These studies have enabled EPA to assess the status of trap-oxidizers as of the end of 1982, a full year later than that possible in the Feasibility Study. The results from these recent studies are summarized in the following discussion. (A more detailed presentation of this analysis can be found in "An Updated Assessment of the Feasibility of Trap-Oxidizers.")⁵

1. *Status of Development.* The information gathered by the Agency as part of this rulemaking continues to show good trap-oxidizer efficiency, backpressure, and durability performance when proper regeneration conditions are maintained. The results of two durability programs have also demonstrated the basic integrity of the ceramic monolith trap design. Daimler-Benz (producer of Mercedes-Benz vehicles) reported that it successfully completed 50,000-mile durability tests on six naturally aspirated vehicles in 1981 with very little control over the regeneration process. Particulate collection efficiencies were on the order of 80 percent. The testing of three turbocharged vehicles was halted at between 35,000 and 40,000 miles because of driveability problems, while the traps on the three remaining turbocharged vehicles failed, probably due to lack of control over the regeneration process. The Agency completed a 50,000-mile durability program in early 1982 with a ceramic monolith trap installed on a Mercedes turbocharged vehicle. The trap exhibited high efficiency (90 percent), low backpressure, and impressive stability over the entire 50,000 miles.

Johnson Matthey, Inc. proved the basic durability of the catalyzed wire mesh trap with a successful 50,000-mile demonstration which was also completed in early 1982. Particulate reductions varied between 40 and 60

percent, as the trap was only designed to be 50 percent efficient due to the low engine-out emissions of the test vehicle. The trap produced moderate backpressure increases, and also reduced hydrocarbon (HC) and carbon monoxide (CO) emissions as would be expected with a catalyzed trap. Clearly both ceramic monolith and wire mesh traps are capable of maintaining particulate collection efficiencies of 50 to 90 percent with moderate overall increases in backpressure for up to 50,000 miles (and likely more) when regeneration conditions are properly controlled.

Much of the industry's recent trap-oxidizer research has concentrated on the design and development of regeneration mechanisms and control systems. There are two general approaches to regeneration—positive and self-regeneration. Positive regeneration systems regenerate the trap at a specific point in time by activating a mechanism to ensure that regeneration occurs. Self-regeneration systems utilize no periodic mechanisms, but instead rely on attaining regeneration conditions during normal vehicle operation.

Positive regeneration systems for non-catalyzed traps typically involve the addition of an external heat source or the modification of engine parameters in order to raise the exhaust gas temperature. Systems which have been tested on non-catalyzed traps include fuel burners, electrical heaters, and intake air throttling. Catalyzed traps can also utilize mechanisms which raise the concentrations of HC and CO in the exhaust. The HC and CO are oxidized by the catalyst, with the additional heat then igniting the particulate in the trap. Proposed systems for raising HC and CO levels include exhaust stroke fuel injection, adjustment of engine parameters (such as exhaust gas recirculation rates and/or timing), and individual cylinder throttling. At this time, it appears that the most promising positive regeneration systems are the fuel burner for non-catalyzed traps and exhaust stroke fuel injection for catalyzed traps. These mechanisms are explained in greater detail in the Agency reports cited above.

Positive regeneration systems require on-board systems to initiate and control the regeneration process. Manufacturers have accumulated considerable data on the minimum levels of trapped particulate, exhaust oxygen, and exhaust temperature necessary to initiate successful regeneration, as well as the time necessary to complete regeneration. Manufacturers have also characterized the maximum particulate

³ Available for inspection in EPA Docket No. A-82-32.

⁴ This study was prepared under EPA Contract No. 68-01-6543 by Energy and Resource Consultants, Inc., and is available for inspection in EPA Docket No. A-82-32.

⁵ Available for inspection in EPA Docket No. A-82-32.

loadings and inlet temperatures which can be permitted without risk of overheating the trap. Several sophisticated control systems have been designed, fabricated, and installed on experimental vehicles. To date, regeneration systems have not been completely automated but that is not expected to be a major barrier.

The components of a regeneration control system will likely involve sensors, actuators, and a central processing unit. Sensors may be required for some or all of the following parameters: Exhaust and trap temperature, engine revolutions and load, burner ignition detection, accelerator pedal position, backpressure, etc. Actuators which would be required include valves, solenoids, relays, and possibly remotely operated accessory clutches for air pumps. Most of these sensors and actuators are either used already in automotive applications or are similar to items which are available. Development of a durable and accurate backpressure sensor, thought to be difficult at the time of the Feasibility Study, now appears to be imminent.

The addition of a microprocessor to control and monitor regeneration should also be fairly straightforward. It is expected that by the late 1980's many diesel manufacturers will utilize microprocessors to determine fuel injection rate and timing based on information provided by a variety of sensors. Control logic for trap-oxidizer regeneration would simply be one additional function for vehicles equipped with electronic controls. Those vehicles without microprocessors would require a separate logic system, but adding such a system would be fairly straightforward compared to the sophisticated electronics used on today's gasoline-fueled vehicles.

While the successful development of positive regeneration systems is expected, the design and application of such systems have proved to be somewhat more complex and time consuming than projected at the time of the Feasibility Study. This is the primary reason for the delay in implementation of the more stringent particulate standards. This fact has also renewed interest in the concept of self-regeneration. Recent work in this area has centered on the use of diesel fuel additives.

It has been found that organometallic compounds added to diesel fuel can effectively lower the ignition temperature of trapped particulate. Several fuel additives have been evaluated, including copper, lead, manganese, calcium, and their various

combinations. The results have been very promising and fuel additives are now the leading area of regeneration research for many manufacturers.

There are still several unresolved issues with respect to the applicability of fuel additives to induce self-regeneration. Should the additive be premixed into diesel fuel at the refinery or added on-board the vehicle? Will the additive and any combustion by-products be compatible with fuel injection and engine hardware? The two most serious, and somewhat interrelated, concerns of fuel additives are the environmental consequences of their usage and the possibility of trap plugging with metal deposits. Preliminary testing indicates that nearly 100 percent of the additive is collected in the trap, with only negligible amounts emitted into the atmosphere. This is very beneficial from an environmental standpoint, since many of the metals are toxic. However, the trapping of the additive raises concerns about trap plugging and excessive backpressure. In addition, if the additive were stored on-board the vehicle, this would raise concerns over occupant safety, since some of the additives are toxic in concentrated form.

If the above concerns can be satisfactorily resolved, self-regeneration would pose a simpler and cheaper alternative to positive regeneration systems, since the need for an elaborate control system could be eliminated. Possibly the only control requirement would be a fail-safe system to prevent excessive particulate loading and resultant trap overheating. Such a self-regeneration system would require little engine/vehicle modification as well.

2. *Leadtime.* The technical information available as of February 1983 (i.e., the close of the public comment period for this action) indicated that diesel manufacturers did not meet the projected January 1983 date for successful prototype development. However, that same information showed that much progress had occurred with positive regeneration design and development, and that the final remaining task was to integrate specific regeneration mechanisms into an overall control system. In this regard, most, if not all, of the necessary components for completing this task are available or easily adapted from existing sources.

Somewhat greater uncertainties exist with respect to self-regeneration systems based on fuel additives. Given the high rate of progress in the last year, however, and the fact that self-regeneration systems involve less complexity and fewer design modifications, the Agency considers fuel

additives to have the potential of being developed on a similar schedule as positive regeneration systems. Of course, both positive and self-regeneration systems need not be developed; only one is necessary.

Although the inherent uncertainties involved in prototype development work make it difficult to specifically project the completion of this task, such a projection is a necessary part of any leadtime analysis. Based on the technical information mentioned above, the straightforward nature of the remaining engineering tasks, and the progress that had been achieved as of February 1983, the Agency projects that an additional six to nine months of optimization would permit manufacturers to develop workable prototype trap-oxidizer systems. This means that industry-wide assurance testing could begin as early as the fall of 1983.

Information that has recently become available supports the Agency's projection for the completion of prototype development. Daimler-Benz and GM have publicly announced they are currently testing trap-oxidizer systems.⁶ Daimler-Benz stated in August 1983, and reiterated in November 1983, that if its current test program is successful, a trap-equipped vehicle will be introduced in California for the 1985 model year. General Motors stated in November 1983 that equipping its diesel LDT for the California market was infeasible by the 1985 model year, and was "borderline" for the 1986 model year.

These comments by Daimler-Benz and GM suggest that the automotive industry has met EPA's projected date for completing prototype development, i.e., about the fall of 1983. This is based on the fact that the programs described by these manufacturers must involve assurance testing if there is to be any hope of achieving the referenced model year dates. Otherwise, the leadtimes associated with manufacturing production hardware would make these dates unattainable. Therefore, manufacturers appear to be basically on schedule for complying with the more stringent particulate standards on a nationwide basis for the 1987 model year.

The Agency has reviewed its analysis of production leadtime and reaffirmed the Feasibility Study's conclusion that 25 to 33 months would likely be necessary to produce trap-oxidizers for

⁶ Available for inspection in EPA Docket No. A-82-32.

the national fleet.⁷ Adding this time to the above projection that successful prototypes could be developed around the fall of 1983, EPA projects that trap-oxidizers should be available for production vehicles sometime between the fall of 1985 and the summer of 1986. Under this entire range, trap-oxidizers will be available in time for the 1987 model year. Therefore, EPA concludes that delaying the 1985 particulate standards for two years is sufficient to allow for the complete development of trap-oxidizer technology.

C. Technical Amendments for Light-Duty Vehicles and Light-Duty Trucks

Three technical amendments are being made to the high-altitude emission control regulations for 1984 and later light-duty motor vehicles. The first amendment involves the designation of high-altitude locations where only vehicles certified to emission standards at high altitude may be sold.

On October 19, 1983, a high-altitude rulemaking adopted the revised list of "designated high-altitude locations" for 1984 and later LDVs, that was previously applicable only to LDTs (48 FR 48598). Although the text of the regulations correctly stated that the associated list of high-altitude locations applied to both LDVs and LDTs, the actual title of the list continued to refer only to LDTs. This oversight in 40 CFR Part 86 (§ 86.084-30 and § 86.085-30) is being corrected by simply deleting the title. This revision along with the existing text makes it clear that the list of "designated high-altitude locations" applies to both vehicle classes.

The second amendment revises a typographical error that occurred in the above-referenced rulemaking when the high-altitude standards for 1985 and later LDTs were reinstated after being inadvertently deleted by the diesel particulate emissions averaging program (48 FR 33456). The carbon monoxide standard in 40 CFR Part 86 (§ 86.085-9) for high-altitude LDTs was incorrectly published as 14.0 g/mi. The corrected value is 14 g/mi.

The third amendment affects the control of crankcase emissions from

high-altitude LDTs beginning in the 1984 model year. Currently, crankcase emissions from both gasoline-fueled and diesel-powered LDTs are prohibited at low altitude. However, the January 13, 1983 high-altitude LDT rulemaking specifically restricted crankcase emissions from gasoline-fueled LDTs only (45 FR 5988). The intent of the high-altitude regulations was to restrict these emissions from both types of LDTs because: (1) Crankcase controls at high altitude have historically mirrored those at low altitude, and (2) there is no technical need for diesel-powered vehicles to have open crankcases at high altitude when they are already sealed at low altitude. Therefore, 40 CFR Part 86 (§ 86.084-9 and § 86.085-9) is being revised to prohibit crankcase emissions from all LDTs, regardless of elevation.

This amendment will have no adverse effect on the automotive industry since light-duty diesel truck manufacturers are already complying with the requirement.

D. Technical Amendment for Heavy-Duty Engines

The rulemakings of January 21, 1980, governing 1984 and later model year heavy-duty engines (45 FR 4136), and September 25, 1980, governing 1984 and later model year light-duty trucks (45 FR 63734) each created a new section in 40 CFR Part 86 dealing with the automatic expiration of reporting requirements. In addition to being duplicative, one of these sections, 86.084-39, was incorrectly numbered. This had the unintended effect of overriding the provisions of § 86.079-39, which deals with the submission of maintenance instructions to the Administrator.

Today's action deletes one of these duplicative sections, 86.084-39, in favor of retaining the correctly numbered § 86.084-40. This deletion effectively restores the provisions of § 86.079-39, which were never intended to be overridden.

III. Public Participation

This section summarizes and analyzes comments to the proposed rule which were received during the public comment period, including those presented at the public hearing held in Ann Arbor, MI on January 18, 1983. The comments covered several topics, including the need, cost, and technical feasibility of the LDD particulate standards. As clearly stated in the proposal, however, only the technical feasibility of the standards was being considered as the basis for the 2-year delay. Therefore, only comments relevant to that issue are considered in this Final Rule. EPA is continuing to

examine other issues such as health needs and relative costs of control as pertinent data are generated, and the comments received on these issues will be considered in that examination. The comments pertinent here have been organized into three areas by subject matter: (1) The status of trap-oxidizer development, (2) leadtime, and (3) alternative control strategies.

A. Status of Trap-Oxidizer Development

The only commenter to challenge the Feasibility Study's conclusions directly regarding efficiency, backpressure, and durability was Ford. First, Ford claimed that the collection efficiencies of nominally identical trap-oxidizers can vary by up to 20 percent, but supplied no evidence to support this statement. While the Agency agrees that general types of trap-oxidizers can show various efficiencies—the Feasibility Study expresses typical efficiencies in ranges—EPA is not aware of data which would quantify the amount of variability which would occur between properly functioning, identical traps. However, even if the claim by Ford was correct, current engine-out particulate levels are low enough that such variability would not affect a manufacturer's ability to comply with the standards.

Ford stated that EPA ignored the fuel economy and performance impacts of loaded-trap backpressure. The Agency did not ignore these impacts, but focused in the Feasibility Study on a trap's ability to return to zero-mile backpressure after regeneration. This being the case, the regeneration system can be designed to regenerate before backpressure reaches a level where significant impacts would be observed. This has been demonstrated in vehicle testing by both Daimler-Benz and the Southwest Research Institute (the latter under contract to EPA).

Ford objected that EPA's conclusions regarding durability, based on test data with manually initiated regeneration under steady-state conditions, were premature since regeneration will have to be automated and achievable under transient conditions. The Agency did not in the Feasibility Study, and cannot now, argue that trap durability has been proved under all possible regeneration conditions. Rather, EPA believes that several successful 50,000-mile tests show that trap durability is satisfactory when regeneration conditions are properly controlled. However, it should be noted that Ford has investigated routing the exhaust around the trap during regeneration to isolate the trap from transient conditions. Such a bypass

⁷It should be noted that these conservative leadtime projections consider only the time necessary to enable manufacturers to introduce trap-oxidizers on most or all models requiring them in order to meet the 0.2 g/mi particulate standard on a nationwide basis. The Agency's decision to grant a delay until the 1987 model year to provide adequate leadtime on a Federal basis does not consider whether trap-oxidizer technology may be available at an earlier date in the California market if needed to meet that State's planned 1986 model year implementation of the 0.2 g/mi standard for light-duty motor vehicles. For more information on California's waiver request, see 48 FR 22625, May 19, 1983.

system may avoid any problems associated with transient operations.

Several vehicle manufacturers reported examples of traps physically failing (i.e., cracking, melting, plugging). Some observers have commented that such failures indicate that trap-oxidizers are infeasible. The Agency disputes this analysis. In the development of any new technology there will be many failures before success is achieved. When traps have failed, it is almost invariably due to excessive particulate loading in the trap prior to regeneration, leading to destructive temperatures during regeneration. The frequency of trap failure has receded in the recent past as researchers have expanded their knowledge of the limitations of various trap designs. The Agency expects trap failure to become infrequent as regeneration systems are refined.

The only other significant comment on non-regeneration trap performance came from the Manufacturers of Emission Control Association (MECA). MECA stated that "several of our members will be able to make available that portion of the control system which they plan to produce," (i.e., a satisfactory trap). This position, by the companies which would manufacture traps, is consistent with the Agency's position that trap efficiency, backpressure, and durability are acceptable given workable regeneration control systems.

Ford also commented on EPA's analysis of regeneration in the Feasibility Study. First, Ford questioned EPA's conclusion in the Feasibility Study regarding the types of sensors which would be required for a successful regeneration control system. Ford argued that mileage and engine revolution counters would not be acceptable, but at the same time implicitly supported the Feasibility Study's statement that preferable backpressure sensors of sufficient reliability and durability should be available very soon. At the public hearing, Ford stated that it was already testing backpressure sensors on an experimental basis. Volkswagen also stated at the hearing that such sensors should not present a problem.

Ford also claimed that EPA ignored the issue of regeneration under transient operating conditions. The Agency agrees with Ford that regeneration must be achievable under transient engine operating conditions. However, many manufacturers, including Ford, have investigated positive regeneration systems using an exhaust bypass to route the exhaust away from the trap during regeneration. As already mentioned, this would isolate the trap

from engine operation and remove any problems associated with transient exhaust flow conditions. Emission levels during trap-bypass would be significantly higher than during trapping and would have to be accounted for during determinations of compliance with the standards. The Agency will be considering alternative methods for doing this as more exact features of trap-bypass systems become available.

The most significant development in trap-oxidizer regeneration is the recognition of the potential of fuel additives to induce self-regeneration. General Motors' comment was indicative of the trend towards fuel additives—

[M]ost of the systems currently under development are much different than any described in our October 1981 response. Our emphasis on fuel additives began after that submission. The use of additives arose out of necessity. Burner systems were proving to be too costly, and the high temperatures and temperature gradients experienced with these systems were causing trap failures during regeneration. Systems employing additives appeared to be less costly, and they offered several other potential advantages. . . . [T]he main motivation for using additives is that they allow regeneration at lower temperatures, resulting in fewer trap failures as a result of overheating and thermal shock. However, we also pointed out at the hearing that there are still major concerns with additives.

Volkswagen also stated that additives were its preferred regeneration mechanism at the time of its comment. Other major commenters, such as Ford and Daimler-Benz, did not rank their various systems. Daimler-Benz, in fact, argued against the use of organometallic fuel additives on the basis of unregulated emissions, trap plugging, and engine wear.

As discussed above, EPA considers the possibility of self-regeneration with the use of fuel additives to be a potential alternative to positive regeneration systems, and the Agency agrees with GM that the use of additives may be simpler and less expensive. EPA also agrees with GM and other commenters that there are several unresolved issues with respect to additive usage. These were discussed in a previous section. Accordingly, at this time the Agency only considers positive regeneration systems, such as the fuel burner and exhaust stroke fuel injection, as being definitely available for 1987 production. Successful application of additives is considered an alternative which will require additional investigation.

With respect to overall evaluations of the status of trap-oxidizer development, the vehicle manufacturers were unanimous in saying that they had not

yet identified a trap/regeneration control system as of February 1983 (i.e., the close of the comment period) which could be committed to production. The Agency has evaluated the progress made by the manufacturers and agrees that workable trap/regeneration control systems were not available as of that date. Nevertheless, the Agency found the manufacturers to be in the final stage of trap-oxidizer development and no manufacturer offered evidence to the contrary.

B. Leadtime

Many commenters discussed the issue of leadtime. Some of the comments specifically dealt with the primary leadtime components as identified in the Feasibility Study (i.e., prototype and production development). Others, however, provided more general remarks about the implementation date of the particulate standards. The specific comments will be discussed in the first two sections followed by a discussion of the general comments in the final section.

1. *Prototype Development Leadtime.* Chrysler, Ford, Nissan, and the National Automobile Dealers Association (NADA) suggested that because the January 1983 milestone for the completion of prototype development had not been attained, EPA's subsequent conclusion that trap-oxidizers would be available for the 1987 model year was invalidated. At the public hearing, GM stated that its September 1983 estimate for the completion of prototype development, which was submitted for the Feasibility Study, could not be revised because of the uncertainties involved. Nonetheless, GM found EPA's projection to be unrealistic. In its subsequent written comments, GM expressed a concern that prototype development may not even be completed by June 1984, which it regarded as necessary for a 1987 model year introduction.

The relative significance of the January 1983 date, with regard to the technical feasibility of trap-oxidizers for the 1987 model year, can only be explained in the context of the entire leadtime schedule that was presented in the Feasibility Study. The analysis in that document showed that even under "worst case" production leadtime assumption (33 months), trap-oxidizers should be ready for mass production by about October 1985 if this first milestone were reached. While this is 2-3 months after the 1986 model year begins, it is also 9-10 months before the beginning of the 1987 model year. Therefore, even under these worst case conditions, it

would be possible for manufacturers to "miss" the January 1983 prototype development milestone by up to 10 months and still have traps ready for the 1987 model year. This clearly provided manufacturers a significant amount of additional leadtime and diminishes the importance of achieving the January 1983 milestone.

Regarding GM's prototype leadtime projections, EPA reassessed the status of trap-oxidizer development within the automotive industry in the previous section. That analysis shows it is reasonable to expect prototype development could be completed around the fall of 1983, well ahead of the June 1984 deadline mentioned in GM's last submittal. Subsequent statements by GM suggest this is indeed the case.

2. Production Development Leadtime. Ford stated that the most significant difference between its production development schedule and EPA's was for assurance testing. Ford estimated 31 months and EPA estimated 7-9 months. (The Agency's projection includes 3.5-5 months for a 50,000-mile test and 3-4 months for data analysis.) Daimler-Benz commented that EPA's 5-month allowance for a 50,000-mile test is overly optimistic because the projection is based primarily on high-load driving with only a small fraction of part-load and idle operation and with few cold starts. It stated that guaranteeing and controlling regeneration during these latter phases of the operating regime is a special concern with current regeneration systems. Thus, Daimler-Benz claimed that including more part-load and idle operation in the 50,000-mile test could easily double the time required.

General Motors commented at the public hearing that its earlier estimate of production leadtime, submitted for the Feasibility Study, remained unchanged. That submittal included a projection of 24 months to complete production development, but also contained a statement that a limited production-built fleet would be necessary to evaluate trap-oxidizers before mass production of the systems could begin. The period of time required for such a test program was unspecified, however. General Motors also commented on production development leadtime in its subsequent written comments. That submission included an estimate of about 26 months for post-prototype, production-related facilities without specific mention of the need for a limited production-built test fleet.

The Natural Resources Defense Council (NRDC) requested that EPA reevaluate its leadtime projections "with a cautious eye to the Agency's legal

obligation to force the rapid introduction of these controls." NRDC suggested allowing only one round of assurance testing (a total of 6 months) and 12-18 months for tooling.

Ford's production leadtime comments were taken from its "Corporate Timing Standard" for normal product development. However, no justification was given for why this standard included 31 months of assurance testing nor why this standard should apply to trap-oxidizer development. Even accepting the fact that 31 months of assurance testing is a necessary part of this standard, the Agency believes that Ford's preferred internal timing standard should not be used as the basis in developing emission control technology. Rather, emission controls which are necessary to protect public health should be developed along a more aggressive schedule. Therefore, EPA rejects Ford's position that 7-9 months for assurance testing is inadequate. EPA believes that the 7-9 month estimate was developed using reasonable times for the component efforts as discussed earlier.

The Agency is in basic agreement with Daimler-Benz's comment concerning the need for more part-load and idle operation during the 50,000-mile assurance test than was assumed in the Feasibility Study. However, it does not necessarily follow that this test must take longer than the 3.5-5 months allotted by EPA. The Agency's estimate is based on data used in past rulemaking actions. It is conservative in that the test vehicles are assumed to accumulate mileage 8 hours per day. If adding more part-load and idle operation to the test sequence requires more time, it could be accommodated by running the vehicles for more than 8 hours each day. While this would increase the cost of the test, it would not add to the number of months which are necessary to conduct the program. Therefore, EPA does not agree with Daimler-Benz's comment that conducting a 50,000-mile assurance test will take longer than the 3.5-5 months projected by the Agency.

The two comments from GM on production leadtime appear to be somewhat inconsistent in that the need for a production-built test fleet after tooling and production facilities are operational was specifically mentioned only once. The lack of any reference to such a test program in GM's most recent submittal may mean that it is no longer regarded as necessary. (No other manufacturer mentioned the need for a similar program.) In this case, GM's estimates of 24-26 months for total production development are in general

agreement with the lower bound of EPA's 25-33 month estimate. On the other hand, not specifically mentioning the production-built test program in its latest submittal may have been a simple oversight. If GM continues to believe it is necessary, up to 9 months could be allotted for the test program and still be within EPA's projected range of 25-33 months (9+24=33). Nine months of critical path should be more than adequate for such a program. Therefore, in either case, GM's production leadtime estimates are consistent with EPA's estimate.

Based on the leadtime analysis presented in section II.B above, EPA cannot agree with NRDC's recommendation to shorten the production leadtime schedule. Adequate leadtime must be provided to ensure that trap-oxidizers will function properly in-use, and the lower limits of the estimated leadtime range cannot be arbitrarily applied to the entire industry. EPA has adequate discretion under Sections 202(a) (1) and (2) of the Act to select the appropriate model year for trap introduction based in part on leadtime estimates.

3. Applicable Model Year. Most of the general leadtime comments from manufacturers regarding their assessment of the model year in which trap-oxidizers would be available were unsupported. American Motors stated the 2-year delay appeared to be inadequate. Peugeot stated that trap-oxidizers definitely would be unavailable for the 1986 model year and that it was unsure whether they would be available in time for the 1987 model year. Volkswagen commented that there was no possibility of introducing traps by the 1986 model year and that it was "cautiously optimistic" about meeting the 1987 model year. Daimler-Benz commented that EPA's leadtime projections were overly optimistic, but did not state that more than a 2-year delay was necessary to perfect trap-oxidizers.

General Motors and Ford provided more specific leadtime information. However, as their overall leadtime projections depend on their specific comments which have already been addressed, their general comments will only be briefly mentioned here.

The Natural Resources Defense Council commented that Daimler-Benz' testimony to the California Air Resources Board (CARB) concerning the availability of trap-oxidizer control technology by the 1985 model year was evidence that the 1985 model year deadline could be met, or 1986 at the latest.

The unsubstantiated model year assessments of some manufacturers make it impossible for EPA to review such comments critically. It can only be noted that no manufacturer, except Ford, went so far as to say that trap-oxidizers were definitely infeasible for the 1987 model year. For example, VW stated that it is "cautiously optimistic," while GM stated that the 2-year delay "will probably not be enough." Although such unsubstantiated statements do not directly support the feasibility of trap-oxidizers for the 1987 model year, they also do nothing to counter EPA's conclusion that this expectation is reasonable.

Concerning NRDC's comment, the Daimler-Benz testimony to CARB would appear to be much more complex than a simple statement that trap-oxidizers would be feasible for the 1985 model year. In its testimony, Daimler-Benz was actually requesting relief from CARB's stringent 1984 NO_x standard, which it stated would otherwise preclude its marketing of any diesel vehicles in California. In return, Daimler-Benz committed to meeting a particulate standard more stringent than 0.40 g/mi in 1985 (approximately 0.32 g/mi) if averaging were allowed. Also, in its written comments to EPA, Daimler-Benz refuted NRDC's interpretation of its testimony to CARB. Daimler-Benz clarified that its statement to CARB was that if trap-oxidizers were available by the 1985 model year, they could only be applied to part of its fleet. Finally, even if Daimler-Benz is able to equip some of its vehicles with trap-oxidizers by 1985, this does not necessarily demonstrate that these devices are technically feasible for other manufacturers in that timeframe, especially on a nationwide basis.

Based on the status of trap-oxidizer development throughout the industry, as well as at Daimler-Benz, the Agency disagrees with NRDC's assessment of the feasibility of trap-oxidizers prior to the 1987 model year. While it may appear that Daimler-Benz's trap-development program is proceeding ahead of many others, this does not automatically demonstrate nationwide feasibility in 1985 or 1986 for a sufficient portion of the overall fleet.

C. Alternative Control Strategies

An alternative control strategy was suggested by NRDC in which no delay would be granted for those diesel models which do not need trap-oxidizers to meet the 1985 standards. If there is a delay, however, then NRDC felt that interim standards at or below 0.40 g/mi should be established to prevent air quality deterioration.

The Agency expects there would be no real nationwide environmental benefit either by implementing the 0.20 g/mi standard for only a portion of the fleet or by establishing an interim standard at or below 0.40 g/mi. Under the existing 0.6 g/mi particulate standard, manufacturers are generally using the best available non-trap control technology and as a result particulate emissions from current light-duty diesel vehicles are generally significantly below the standard. Moreover, manufacturers have fairly strong incentives (relative to the low cost of these non-trap technologies) to keep particulate emissions low because of the deleterious effects of high particulate levels on oil change intervals, durability of the exhaust gas recirculation system, cylinder durability, and smoke levels. Therefore, the Agency finds that on a nationwide basis NRDC's alternative strategy would result in little, if any environmental gain.

D. EPA's Responsibility Under the Clean Air Act

Natural Resources Defense Council commented that EPA's approach to the proposed delay does not fulfill its obligation to establish technology-forcing standards. Instead, it argued, EPA is taking a very conservative approach, evidenced by the lack of a thorough technology-forcing inquiry, which is inconsistent with the Agency's mandate to protect health and welfare.

In responding to this comment, four points need to be discussed. First, the 0.20 g/mi LDV and 0.26 g/mi LDT particulate standards are certainly technology-forcing in that at the time they were promulgated, the requisite control technology did not exist. Even now a significant amount of development remains to be accomplished before trap-oxidizers are ready for commercial introduction. The 2-year delay does nothing to reduce this aspect of the particulate standards.

Second, while EPA agrees that its mission is to protect the public health and welfare, Congress has provided the Agency with guidelines for discharging this responsibility. Section 202(a)(2) of the Act clearly states that standards are to take effect after allowing adequate leadtime for development. As discussed in the preceding section of this preamble, the Agency has determined that it is reasonable to expect that trap-oxidizer systems will not be generally available on a national basis until the 1987 model year. Therefore, the Agency's action in this matter is wholly consistent with its duties under the Act.

Third, EPA's analysis of the status and leadtime requirements of trap-

oxidizer technology was both detailed and thorough. The Agency's effort to secure all the facts relating to trap-oxidizer technology included: (1) Publishing a request for information in the *Federal Register* (46 FR 31677), (2) conducting a number of meetings with the automotive industry, the emission-control manufacturing industry, and NRDC, (3) publishing EPA's comprehensive analysis of trap-oxidizer development (i.e., the Feasibility Study), and (4) conducting a subsequent and completely independent analysis under contract (i.e., the Technology Study). Also, the notice and comment period associated with this rulemaking action provided an opportunity to receive and review additional information. Therefore, the record clearly demonstrates the Agency's effort to conduct a thorough technological investigation.

Fourth, even with a 2-year delay to 1987, EPA has shown a commitment to the concept of technology forcing. A more conservative 1988 effective date for particulate standards was recommended by the National Academy of Science (NAS). Also, some manufacturers that commented on the proposal either explicitly recommended or suggested this same date. This supports the Agency's position that the adoption of the 1987 model year in this Final Rule is not overly conservative. Rather, it is the earliest model year for which trap-oxidizers can be projected to be commercially available throughout the industry on a nationwide basis. In reaching this conclusion, EPA has balanced the risks of an overly optimistic prediction against the environmental consequences of implementing these standards in 1987, rather than 1986. The Agency has concluded that the consequences of a wrong decision (i.e., if 1986 proved infeasible on a nationwide basis) would be severe, and that these potential consequences are not overcome by the deferral of the benefits of more stringent standards until 1987.

IV. Authority

Statutory authority for this final rule is provided by Sections 202(a) and 301(a) of the Clean Air Act (42 U.S.C. 7521(a) and 7601(a)). Section 202(a)(1) of the Act provides, in part, that "[t]he Administrator shall by regulation prescribe . . . standards applicable to the emission of any pollutant from any class or classes of new motor vehicles . . . which may reasonably be anticipated to endanger public health or welfare." Section 202(a)(2) of the Act provides, in part, that "[a]ny regulation

prescribed under paragraph (1) * * * shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." Section 301(a) provides, in part, that "[t]he Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this Act."

I find that good cause exists to make this rule effective immediately since some manufacturers will soon be producing 1985 model year vehicles that would be required to meet this standard or be prohibited from sale. Moreover, because this rule simply delays the effective date of the standard, it relieves a restriction.

Judicial Review: Under Section 307(b)(1) of the Act, EPA hereby finds that these regulations are of national applicability. Accordingly, judicial review of this action is available only by the filing of a petition for review in the United States Court of Appeals for the District of Columbia Circuit within 60 days of publication. Under Section 307(b)(2) of the Act, the requirements which are the subject of today's notice may not be challenged later in judicial proceedings brought by EPA to enforce these requirements.

Administrative Designation: Under Executive Order 12291 EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This final rule delays the implementation date of an existing regulation and as a result does not impose either new costs or significant adverse effects on competition, productivity, investment, employment, or innovation. This final rule is, therefore, not major and is not subject to the requirements of a Regulatory Impact Analysis.

This regulation was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291. Any comments from OMB to EPA or EPA's response to these comments are available for public inspection in the docket cited at the beginning of this preamble.

Effect on Small Entities: Section 605 of the Regulatory Flexibility Act requires that the Administrator determine whether regulations will have a significant impact on a substantial number of small entities. I certify that this regulation indeed does not have any significant impact on small entities. Few, if any, small entities market diesel engines or are involved in trap-oxidizer development, which is the subject of these regulations. Therefore, no small

entities should see any significant impact.

Impacts of Reporting Requirements: There are no information collection requirements in this final rule, as it merely delays for two years the implementation date of a standard already promulgated in a separate rulemaking.

List of Subjects in 40 CFR Part 86

Administrative practice and procedure, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements.

Dated: January 16, 1984.

William D. Ruckelshaus,
Administrator.

For the reasons discussed in the Preamble, Subpart A of 40 CFR Part 86 is amended as follows:

1. The Authority citation for Part 86 reads as follows:

Authority: 42 U.S.C. 7521(a) and 7601(a).

§ 86.084-39 [Removed]

2. Section 86.084-39 is removed.

3. Section 86.084-9 is amended by revising paragraph (f) to read as follows:

§ 86.084-9 Emission standards for 1984 and later model year light-duty trucks.

(f) No crankcase emissions shall be discharged into the ambient atmosphere from any 1984 and later model year light-duty trucks sold for principal use at a designated high-altitude location.

4. Section 86.084-30 is amended by revising paragraph (a)(5)(ii) to read as follows:

§ 86.084-30 Certification

(a) * * *

(5)(i) * * *

(ii) The designated high-altitude locations defined in paragraph (a)(5)(i) of this section are listed below:

State of Colorado

Adams	Garfield
Alamosa	Gilpin
Arapahoe	Grand
Archuleta	Gunnison
Boulder	Hinsdale
Chaffee	Huerfano
Cheyenne	Jackson
Clear Creek	Jefferson
Conejos	Kit Carson
Costilla	Lake
Crowley	La Plata
Custer	Larimer
Delta	Las Animas
Denver	Lincoln
Dolores	Mesa
Douglas	Mineral
Eagle	Moffat
Elbert	Montezuma
El Paso	Montrose
Fremont	Morgan

Otero	Saguache
Ouray	San Juan
Park	San Miguel
Pitkin	Summit
Pueblo	Teller
Rio Blanco	Washington
Rio Grande	Weld
Routt	

State of Nevada

Carson City	Lyon
Douglas	Mineral
Elko	Nye
Esmeralda	Pershing
Eureka	Storey
Humboldt	Washoe
Lander	White Pine
Lincoln	

State of New Mexico

Bernalillo	Otero
Catron	Rio Arriba
Colfax	Roosevelt
Curry	Sandoval
De Baca	San Juan
Grant	San Miguel
Guadalupe	Santa Fe
Harding	Sierra
Hidalgo	Socorro
Lincoln	Taos
Los Alamos	Torrance
Luna	Union
McKinley	Valencia
Mora	

State of Utah

Beaver	Morgan
Box Elder	Piute
Cache	Rich
Carbon	Salt Lake
Daggett	San Juan
Davis	Sanpete
Duchesne	Sevier
Emery	Summit
Garfield	Tooele
Grand	Uintah
Iron	Utah
Juab	Wasatch
Kane	Wayne
Millard	Weber

5. Section 86.085-8 is amended by revising paragraph (a)(1)(iv) to read as follows:

§ 86.085-8 Emission standards for 1985 light-duty vehicles.

(a)(1) * * *

(iv) *Particulate emissions* (diesels only). 0.60 gram per vehicle mile (0.373 gram per vehicle kilometer).

6. Section 86.085-9 is amended by revising paragraphs (a)(1)(iv), (d)(1)(ii) and (f) to read as follows:

§ 86.085-9 Emission standards for 1985 and later model year light-duty trucks.

(a)(1) * * *

(iv) *Particulate emissions* (diesels only). 0.60 gram per vehicle mile (0.373 gram per vehicle kilometer);

(d) * * *

(1) * * *

(ii) *Carbon Monoxide*. 14 grams per vehicle mile (8.7 grams per vehicle kilometer);

(f) No crankcase emissions shall be discharged into the ambient atmosphere from any 1984 and later model year light-duty trucks sold for principal use at a designated high-altitude location.

7. Section 86.085-21 is amended by revising paragraph (a), and by removing and reserving paragraph (b)(5) as follows:

§ 86.085-21 Application for certification.

(a) A separate application for a certificate of conformity shall be made for each set of standards and each class of new motor vehicles or new motor vehicle engines. Such application shall be made to the Administrator by the manufacturer and shall be updated and corrected by amendment.

(b) * * *

(5) [Reserved]

8. Section 86.085-23 is amended by revising paragraphs (b)(1)(ii) and (e)(1), and by removing and reserving paragraph (f) as follows:

§ 86.085-23 Required data.

(b)(1) * * *

(ii) Exhaust emission deterioration factors for light-duty trucks and heavy-duty engines and all test data that are derived from the testing described under § 86.085-21(b)(4)(iii)(A) as well as a record of all pertinent maintenance. Such testing shall be designed and conducted in accordance with good engineering practice to assure that the engines covered by a certificate issued under § 86.085-30 will meet the emission standards in § 86.085-09, § 86.085-10, or § 86.085-11, as appropriate, in actual use for the useful life of the engine.

(e)(1) A statement that the test vehicles (or test engines) with respect to which data are submitted to demonstrate compliance with the applicable standards of this subpart are in all material respects as described in the manufacturer's application for certification, have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification and that on the basis of such tests the vehicles (or engines) conform to the requirements of this part. If such statements cannot be made with respect to any vehicle (or engine) tested, the vehicle (or engine) shall be identified, and all pertinent data relating

thereto shall be supplied to the Administrator. If, on the basis of the data supplied and any additional data as required by the Administrator, the Administrator determines that the test vehicle (or test engine) was not as described in the application for certification or was not tested in accordance with the applicable test procedures utilizing the fuels and equipment as described in the application for certification, the Administrator may make the determination that the vehicle (or engine) does not meet the applicable standards. The provisions of § 86.085-30(b) shall then be followed.

(f) [Reserved]

9. Section 86.085-28 is amended by revising paragraphs (a)(2), (a)(3), (a)(4) introductory text, (a)(4) (iii) and (iv), (a)(5), (b)(2), (b)(3), (b)(4) (i) and (iv), (b)(5), and (b)(7), and by removing (a)(6) to read as follows:

§ 86.085-28 Compliance with emission standards.

(a) * * *

(2) The applicable exhaust and fuel evaporative emission standards of this subpart apply to the emissions of vehicles for their useful life.

(3) Since it is expected that emission control efficiency will change with mileage accumulation on the vehicle, the emission level of a vehicle which has accumulated 50,000 miles will be used as the basis for determining compliance with the standards.

(4) The procedure for determining compliance of a new motor vehicle with exhaust emission standards is as follows, except where specified by paragraph (a)(5) of this section for the Alternative Durability Program:

(iii) The emissions to compare with the standard shall be the adjusted emissions of paragraphs (a)(4)(ii) (A) and (B) of this section for each emission-data vehicle. Before any emission value is compared with the standard, it shall be rounded, in accordance with ASTM E 29-67, to two significant figures. The rounded emission values may not exceed the standard.

(iv) Every test vehicle of an engine family must comply with the exhaust emission standards, as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

(5) The procedure to determine the compliance of new motor vehicles in the Alternative Durability Program

(described in § 86.085-13) is the same as described in paragraphs (a)(4)(iii) through (a)(4)(v) of this section. For the engine families that are included in the Alternative Durability Program, the exhaust emission deterioration factors used to determine compliance shall be those that the Administrator has approved under § 86.085-13(c). The evaporative emission deterioration factor for each evaporative emission family shall be determined and applied according to paragraph (a)(4) of this section. The procedures to determine the minimum exhaust emissions deterioration factors required under § 86.085-13(d) are as follows:

(i) Separate deterioration factors shall be determined from the exhaust emission results of the durability-data vehicles for each engine family group. A separate factor shall be established for exhaust HC, exhaust CO, and exhaust NO_x for each engine family group. The evaporative emission deterioration factor for each evaporative family will be determined and applied in accordance with paragraph (a)(4) of this section.

(ii) The deterioration factors for each engine family group shall be determined by the Administrator using historical durability data from as many as three previous model years. These data will consist of deterioration factors generated by durability-data vehicles representing certified engine families and of deterioration factors from vehicles selected under § 86.085-24(h). The Administrator shall determine how these data will be combined for each engine family group.

(A) The test results to be used in the calculation of each deterioration factor to be combined for each engine family group shall be those test results specified in paragraph (a)(4)(i)(A) of this section.

(B) For each durability-data vehicles selected under § 86.085-24(h), all applicable exhaust emissions results shall be plotted as a function of the mileage on the system rounded to the nearest mile, and the best fit straight lines, fitted by method of least squares, shall be drawn through all these data points. The exhaust deterioration factor for each durability-data vehicles shall be calculated as specified in paragraph (a)(4)(i)(B) of this section.

(C) Line-crossing. For the purposes of paragraph (a)(5) of this section, line crossing occurs when either of the interpolated 4,000- and 50,000-mile points of the best fit straight line exceeds the applicable emission standard and at least one applicable data point exceeds the standard.

(1) The Administrator will not accept for certification line-crossing data from preproduction durability-data vehicles selected under § 86.085-24(c)(1), § 86.085-24 (h)(2), or (h)(3).

(2) The Administrator will not accept for certification line-crossing data from production durability-data vehicles selected under § 86.085-24(h)(1) unless the 4,000-mile test result multiplied by the engine family group deterioration factor does not exceed the applicable emission standards. The deterioration factors used for this purpose shall be those that were used in the certification of the production vehicle. Manufacturers may calculate this product immediately after the 4,000-mile test of the vehicle. If the product exceeds the applicable standards, the manufacturer may, with the approval of the Administrator, discontinue the vehicle and substitute a new vehicle. The manufacturer may continue the original vehicle, but the data will not be acceptable if line crossing occurs.

(b)(1) * * *

(2) The exhaust and fuel evaporative emission standards of § 86.085-9 apply to the emissions of vehicles for their useful life.

(3) Since emission control efficiency generally decreases with the accumulation of mileage on the vehicle, deterioration factors will be used in combination with emission-data vehicle test results as the basis for determining compliance with the standards.

(4)(i) Paragraph (b)(4) of this section describes the procedure for determining compliance of a new vehicle with exhaust emission standards, based on deterioration factors supplied by the manufacturers, except where specified by paragraph (b)(5) of this section for the Alternative Durability Program.

(iv) The emission values to compare with the standards shall be the adjusted emission values of paragraph (b)(4)(iii) of this section rounded to two significant figures in accordance with ASTM E 29-67 for each emission data engine.

(5) The procedure to determine the compliance of new motor vehicles in the Alternative Durability Program (described in § 86.085-13) is the same as described in paragraphs (b)(4)(iv), (b)(6)(iv) and (b)(7) of this section. For the engine families that are included in the Alternative Durability Program, the exhaust emission deterioration factors used to determine compliance shall be those that the Administrator has approved under § 86.085-13(c). The evaporative emission deterioration factor for each evaporative emission

family shall be determined and applied according to paragraph (b)(6) of this section. The procedures to determine the minimum exhaust emissions deterioration factors required under § 86.085-13(d) are as follows:

(i) Separate deterioration factors shall be determined from the exhaust emission results of the durability-data vehicles for each engine family group. A separate factor shall be established for exhaust HC, exhaust CO, and exhaust NO_x for each engine family group. The evaporative emission deterioration factor for each evaporative family will be determined and applied in accordance with paragraph (b)(6) of this section.

(ii) The deterioration factors for each engine family group shall be determined by the Administrator using historical durability data from as many as three previous model years. These data will consist of deterioration factors generated by durability data vehicles representing certified engine families and of deterioration factors from vehicles selected under § 86.085-24(h). The Administrator shall determine how these data will be combined for each engine family group.

(A) The test results to be used in the calculations of each deterioration factor to be combined for each engine family group shall be those test results specified in paragraph (a)(4)(i)(A) of this section.

(B) For each durability data vehicle selected under § 86.085-24(h), all applicable exhaust emission results shall be plotted as a function of the mileage on the system rounded to the nearest mile, and the best fit straight lines, fitted by the method of least squares, shall be drawn through all these data points. The exhaust deterioration factor for each durability data vehicle shall be calculated as specified in paragraph (a)(4)(i)(B) of this section.

(C) Line crossing. For the purposes of paragraph (b)(5) of this section, line crossing occurs when either of the interpolated, 4,000- and 50,000-mile points of the best fit straight line exceeds the applicable emission standard and at least one applicable data point exceeds the standard.

(1) The Administrator will not accept for certification line-crossing data from preproduction durability data vehicles selected under § 86.085-24(c)(1), § 86.085-24 (h)(2), or (h)(3).

(2) The Administrator will not accept for certification line-crossing data from production durability data vehicles selected under § 86.085-24(h)(1) unless the 4,000-mile test result multiplied by the engine family group deterioration

factor does not exceed the applicable emission standard. The deterioration factors used for this purpose shall be those that were used in the certification of the production vehicle. Manufacturers may calculate this product immediately after the 4,000-mile test of the vehicle. If the product exceeds the applicable standard, the manufacturer may, with the approval of the Administrator, discontinue the vehicle and substitute a new vehicle, but the data will not be acceptable if line crossing occurs.

(7) Every test vehicle of an engine family must comply with all applicable standards, as determined in paragraph (b)(4)(iv) or (b)(5)(iv) and paragraph (b)(6) of this section, before any vehicle in that family will be certified.

10. Section 86.085-29 is amended by revising paragraph (a)(3)(i) to read as follows:

§ 86.085-29 Testing by the Administrator.

(a) * * *

(3)(i) Whenever the Administrator conducts a test on a test vehicle, the results of that test shall, unless subsequently invalidated by the Administrator, comprise the official data for the vehicle at the prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

11. Section 86.085-30 is amended by revising paragraphs (a)(3)(i) (A) and (B), (a)(5)(ii), (b)(1), (b)(2), (b)(3), (b)(4) introductory text, (b)(4)(ii)(A), and (b)(4)(iii) and (iv), and by removing and reserving paragraphs (a)(3)(iii) and (a)(11) to read as follows:

§ 86.085-30 Certification.

(a) * * *

(3) * * *

(i) * * *

(A) *Light-Duty Vehicles.* Each certificate will certify compliance with no more than one set of standards.

(B) *Light-Duty Trucks.* Each certificate will certify compliance with no more than one set of standards except for low-altitude standards and high-altitude standards. The certificate shall state that it covers vehicles sold or delivered to an ultimate purchaser for principal use at a designated high-altitude location only if the vehicle conforms in all material respects to the design specifications that apply to those vehicles described in the application for certification at high altitude.

* * * * *

(iii) [Reserved]

(5)(i) * * *

(ii) The designated high-altitude locations defined in paragraph (a)(5)(i) of this section are listed below:

State of Colorado

Adams	Kit Carson
Alamosa	Lake
Arapahoe	La Plata
Archuleta	Larimer
Boulder	Las Animas
Chaffee	Lincoln
Cheyenne	Mesa
Clear Creek	Mineral
Conejos	Moffat
Costilla	Montezuma
Crowley	Montrose
Custer	Morgan
Delta	Otero
Denver	Ouray
Dolores	Park
Douglas	Pitkin
Eagle	Pueblo
Elbert	Rio Blanco
El Paso	Rio Grande
Fremont	Routt
Garfield	Saguache
Gilpin	San Juan
Grand	San Miguel
Gunnison	Summit
Hinsdale	Teller
Huerfano	Washington
Jackson	Weld
Jefferson	

State of Nevada

Carson City	Lyon
Douglas	Mineral
Elko	Nye
Esmeralda	Pershing
Eureka	Storey
Humboldt	Washoe
Lander	White Pine
Lincoln	

State of New Mexico

Bernalillo	Mora
Catron	Rio Arriba
Colfax	Roosevelt
Curry	Sandoval
De Baca	San Juan
Grant	San Miguel
Guadalupe	Santa Fe
Harding	Sierra
Hidalgo	Socorro
Lincoln	Taos
Los Alamos	Torrance
Luna	Union
McKinley	Valencia
Otero	

State of Utah

Beaver	Morgan
Box Elder	Piute
Cache	Rich
Carbon	Salt Lake
Daggett	San Juan
Davis	Sanpete
Duchesne	Sevier
Emery	Summit
Garfield	Tooele
Grand	Uintah
Iron	Utah
Juab	Wasatch
Kane	Wayne
Millard	Weber

(11) [Reserved].

(b)(1) The Administrator will determine whether a vehicle (or engine) covered by the application complies with applicable standards by observing the following relationships:

(i) *Light-duty vehicles.* (A) The durability-data vehicle(s) selected under § 86.085-24(c)(1)(i) shall represent all vehicles of the same engine-system combination.

(B) The emission-data vehicle(s) selected under § 86.085-24 (b)(1)(ii) through (b)(1)(iv) shall represent all vehicles of the same engine-system combination, as applicable.

(C) The emission-data vehicle(s) selected under § 86.085-24 (b)(1)(vii)(A) and (b)(1)(vii)(B) shall represent all vehicles of the same evaporative control system within the evaporative family.

(ii) *Light-duty trucks.*

(A) [Reserved].

(B) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(ii) shall represent all vehicles of the same engine-system combination, as applicable.

(C) The emission-data vehicle(s) selected under § 86.085-24 (b)(1)(vii)(A) and (b)(1)(vii)(B) shall represent all vehicles of the same evaporative control system within the evaporative family.

(D) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(v) shall represent all vehicles of the same engine-system combination, as applicable.

(E) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(viii) shall represent all vehicles of the same evaporative control system within the evaporative emission family, as applicable.

(iii) *Heavy-duty engines.* (A) A gasoline-fueled emission test engine selected under § 86.085-24(b)(2)(iv) shall represent all engines in the same family of the same engine displacement-exhaust emission control system combination.

(B) A gasoline-fueled emission test engine selected under § 86.085-24(b)(2)(iii) shall represent all engines in the same family of the same engine displacement-exhaust emission control system combination.

(C) A diesel emission-data test engine selected under § 86.085-24(b)(3)(ii) shall represent all engines in the same engine-system combination.

(D) A diesel emission-data test engine selected under § 86.085-24(b)(3)(iii) shall represent all engines of that emission control system at the rated fuel delivery of the test engine.

(E) [Reserved].

(iv) *Gasoline-fueled heavy-duty vehicles.* A statement of compliance

submitted under § 86.085-23(b)(4)(i) or § 86.085-23(b)(4)(ii) shall represent all vehicles in the same evaporative emission family-evaporative emission control system combination.

(2) The administrator will proceed as in paragraph (a) of this section with respect to the vehicles (or engines) belonging to an engine family or engine family-evaporative emission family combination (as applicable), all of which comply with all applicable standards.

(3) If, after a review of the test reports and data submitted by the manufacturer, data derived from any additional testing conducted pursuant to § 86.085-29, data or information derived from any inspection carried out under § 86.078-7(c) or any other pertinent data or information, the Administrator determines that one or more test vehicles (or test engines) of the certification test fleet do not meet applicable standards, he will notify the manufacturer in writing, setting forth the basis for his determination. Within 30 days following receipt of the notification, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the Administrator's determination and data in support of such objections. If, after a review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, he shall provide the manufacturer a hearing in accordance with § 86.078-6 with respect to such issue.

(4) For light-duty vehicles and light-duty trucks the manufacturer may, at its option, proceed with any of the following alternatives with respect to an emission-data vehicle determined not in compliance with all applicable standards for which it was tested:

(ii) * * *

(A) If the failed vehicle was tested for compliance with exhaust emission standards only: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission data vehicle to be tested for exhaust emission compliance only.

(iii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed from the application and add a vehicle configuration(s) (or evaporative vehicle configuration(s), as applicable) not previously listed. The Administrator

may require, if applicable, that the failed vehicle be modified to the new engine code (or evaporative emission code, as applicable) and demonstrate by testing that it meets applicable standards for which it was originally tested. In addition, the Administrator may select, in accordance with the vehicle selection criteria given in § 86.085-24(b), a new emission-data vehicle or vehicles. The vehicles selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicles selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards, or

(iv) Correct a component or system malfunction and show that with a correctly functioning system or component the failed vehicle meets applicable standards for which it was originally tested. The Administrator may require a new emission-data vehicle, of identical vehicle configuration (or evaporative vehicle configuration, as applicable) to the failed vehicle, to be operated and tested for compliance with the applicable standards for which the failed vehicle was originally tested.

12. Section 86.085-35 is amended by revising the introductory text of paragraphs (a), (a)(1)(iii)(D), (a)(2)(iii)(D), and the introductory text of (c)(1), and by removing and reserving paragraphs (a)(1)(iii)(F) and (a)(2)(iii)(K) as follows:

§ 86.085-35 Labeling.

(a) The manufacturer of any motor vehicle (or motor vehicle engine) subject to the applicable emission standards of this subpart, shall, at the time of manufacture, affix a permanent legible label, of the type and in the manner described below, containing the information hereinafter provided, to all production models of such vehicles (or engines) available for sale to the public and covered by a certificate of conformity under § 86.085-30(a).

(1) * * *

(iii) * * *

(D) Engine tuneup specifications and adjustments, as recommended by the manufacturer in accordance with the applicable emission standards, including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission

position during tune-up and what accessories (e.g., air conditioner), if any, should be in operation;

* * *

(F) [Reserved]

(2) * * *

(iii) * * *

(D) Engine tune-up specifications and adjustments, as recommended by the manufacturer in accordance with the applicable emission standards, including but not limited to idle speed(s), ignition timing, the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable), as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tune-up and what accessories (e.g., air conditioner), if any, should be in operation. If adjustments or modifications to the vehicle are necessary to insure compliance with emission standards at either high or low altitude, the manufacturer shall either include the instructions for such adjustments on the label, or indicate on the label where instructions for such adjustments may be found. The label shall indicate whether the engine tune-up or adjustment specifications are applicable to high altitude, low altitude, or both;

* * *

(K) [Reserved]

* * *

(c)(1) The manufacturer of any light-duty vehicle or light-duty truck subject to the emission standards of this subpart shall, in addition and subsequent to setting forth those statements on the label required by the Department of Transportation (DOT) pursuant to 49 CFR 567.4, set forth on the DOT label or on an additional label located in proximity to the DOT label and affixed as described in 40 CFR 567.4(b), the following information in the English language, lettered in block letters and numerals not less than three thirty-seconds of an inch high, of a color that contrast with the background of the label:

* * *

13. A new § 86.087-8 is added to read as follows:

§ 86.087-8 Emission standards for 1987 light-duty vehicles.

(a) (1) Exhaust emissions from 1987 and later model year light-duty vehicles shall not exceed:

(i) *Hydrocarbons*. 0.41 gram per vehicle mile (0.255 gram per vehicle kilometer).

(ii) *Carbon monoxide*. 3.4 grams per vehicle mile (2.11 grams per vehicle kilometer).

(iii) *Oxides of nitrogen*. 1.0 gram per vehicle mile (0.629 gram per vehicle kilometer).

(iv) *Particulate emissions* (diesels only). 0.20 gram per vehicle mile (0.124 gram per vehicle kilometer). A manufacturer may elect to include all or some of its diesel light-duty vehicle engine families in the particulate averaging program, provided that vehicles produced for sale in California or in designated high-altitude areas may be averaged only within each of these areas. If the manufacturer elects to average diesel light-duty vehicles and diesel light-duty trucks together in the particulate averaging program, its composite particulate standard applies to the combined set of diesel light-duty vehicles and diesel light-duty trucks included in the average and is calculated as defined in § 86.087-2.

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust emitted over a driving schedule as set forth in Subpart B of this part and measured and calculated in accordance with those procedures.

(b)(1) Fuel evaporative emissions from 1987 and later model year gasoline-fueled light-duty vehicles shall not exceed: *Hydrocarbons*. 2.0 grams per test.

(2) The standard set forth in paragraph (b)(1) of this section refers to a composite sample of the fuel evaporative emissions collected under the conditions set forth in Subpart B of this part and measured in accordance with those procedures.

(c) No crankcase emissions shall be discharged into the ambient atmosphere from any 1987 and later model year gasoline-fueled light-duty vehicle.

(d) [Reserved]

(e) [Reserved]

(f) [Reserved]

(g) Any 1985 and later model year light-duty vehicle that a manufacturer wishes to certify for sale shall meet the emission standards under both low- and high-altitude conditions as specified in section 86.082-2, except as provided in paragraphs (h) and (i) of this section. Vehicles shall meet emission standards under both low- and high-altitude conditions without manual adjustments or modifications. Any emission control device used to meet emission standards under high-altitude conditions shall initially actuate (automatically) no higher than 4,000 feet above sea level.

(h) The manufacturer may exempt 1985 model year vehicles from compliance at high altitude with the

emission standards set forth in paragraphs (a) and (b) of this section if the vehicles are not intended for sale at high altitude and if the requirements of paragraphs (h) (1) and (2) of this section are met.

(1) A vehicle configuration shall only be considered eligible for exemption under paragraph (h) of this section if the requirements of either paragraph (h)(1) (i), (ii), (iii), or (iv) of this section are met.

(i) Its design parameters (displacement-to-weight ratio (D/W) and engine speed-to-vehicle-speed ratio (N/V)) fall within the exempted range for that manufacturer for that year. The exempted range is determined according to the following procedure:

(A) The manufacturer shall graphically display the D/W and N/V data of all vehicle configurations it will offer for the model year in question. The axis of the abscissa shall be D/W (where (D) is the engine displacement expressed in cubic centimeters and (W) is the equivalent vehicle test weight expressed in pounds), and the axis of the ordinate shall be N/V (where (N) is the crankshaft speed expressed in revolutions per minute and (V) is the vehicle speed expressed in miles per hour). At the manufacturer's option, either the 1:1 transmission gear ratio or the lowest numerical gear ratio available in the transmission will be used to determine N/V. The gear selection must be the same for all N/V data points on the manufacturer's graph. For each transmission/axle ratio combination, only the lowest N/V value shall be used in the graphical display.

(B) The product line is then defined by the equation, $N/V = C(D/W)^{-0.9}$, where the constant, C, is determined by the requirement that all the vehicle data points either fall on the line or lie to the upper right of the line as displayed on the graphs.

(C) The exemption line is then defined by the equation, $N/V = C(0.84 D/W)^{-0.9}$, where the constant, C, is the same as that found in paragraph (h)(1)(i)(B) of this section.

(D) The exempted range includes all values of N/V and D/W which simultaneously fall to the lower left of the exemption line as drawn on the graph.

(ii) Its design parameters fall within the alternate exempted range for that manufacturer that year. The alternate exempted range is determined by substituting rated horsepower (hp) for displacement (D) in the exemption procedure described in paragraph (h)(1)(i) of this section and by using the product line $N/V = C(hp/W)^{-0.9}$.

(A) Rated horsepower shall be determined by using the Society of Automotive Engineers Test Procedure J 1349, or any subsequent version of that test procedure. Any of the horsepower determinants within that test procedure may be used, as long as it is used consistently throughout the manufacturer's product line in any model year.

(B) No exemptions will be allowed under paragraph (1)(ii) of this subsection to any manufacturer that has exempted vehicle configurations as set forth in paragraph (1)(i) of this subsection.

(iii) Its acceleration time (the time it takes a vehicle to accelerate from 0 miles per hour to a speed not less than 40 miles per hour and not greater than 50 miles per hour) under high-altitude conditions is greater than the largest acceleration time under low-altitude conditions for that manufacturer for that year. The procedure to be followed in making this determination is:

(A) The manufacturer shall list the vehicle configuration and acceleration time under low-altitude conditions of that vehicle configuration which has the highest acceleration time under low-altitude conditions of all the vehicle configurations it will offer for the model year in question. The manufacturer shall also submit a description of the methodology used to make this determination.

(B) The manufacturer shall then list the vehicle configurations and acceleration times under high-altitude conditions of all those vehicle configurations which have higher acceleration times under high-altitude conditions than the highest acceleration time at low altitude identified in paragraph (h)(1)(iii)(A) of this section above.

(iv) In lieu of performing the test procedure of paragraphs (h)(1)(iii) (A) and (B) of this section, its acceleration time can be estimated based on the manufacturer's engineering evaluation, in accordance with good engineering practice, to meet the exemption criteria of paragraph (h)(1)(iii) of this section.

(2) A vehicle shall only be considered eligible for exemption under this paragraph if at least one configuration of its model type (and transmission configuration in the case of vehicles equipped with manual transmissions, excluding differences due to the presence of overdrive) is certified to meet emission standards under high-altitude conditions as specified in paragraphs (a) through (g) of this section. The Certificate of Conformity (the Certificate) covering any exempted configuration(s) will also apply to the corresponding non-exempt

configuration(s) required under this subparagraph. As a condition to the exemption, any suspension, revocation, voiding, or withdrawal of the Certificate as it applies to a non-exempt configuration for any reason will result in a suspension of the Certificate as it applies to the corresponding exempted configuration(s) of that model type, unless there is at least one other corresponding non-exempt configuration of the same model type still covered by the Certificate. The suspension of the Certificate as it applies to the exempted configuration(s) will be terminated when any one of the following occurs:

(i) Another corresponding non-exempt configuration(s) receive(s) coverage under the Certificate; or

(ii) Suspension of the Certificate as it applies to the corresponding non-exempt configuration(s) is terminated; or

(iii) The Agency's action(s), with respect to suspension, revocation, voiding or withdrawal of the Certificate as it applies to the corresponding non-exempt configuration(s), is reversed.

(3) The sale of a vehicle for principal use at a designated high-altitude location that has been exempted as set forth in paragraph (h) of this section will be considered a violation of Section 203(a)(1) of the Clean Air Act.

(i)(1) The manufacturers may exempt 1985 and later model year vehicles from compliance at low altitude with the emission standards set forth in paragraphs (a) and (b) of this section if the vehicles:

(A) Are not intended for sale at low altitude; and

(B) Are equipped with a unique, high-altitude axle ratio (rear-wheel drive vehicles) or a unique, high-altitude drivetrain (front-wheel drive vehicles) with a higher N/V ratio than other configurations of that model type which are certified in compliance with the emission standards of paragraphs (a) and (b) of this section under low-altitude conditions.

(2) The sale of a vehicle for principal use at low altitude that has been exempted as set forth in paragraph (h)(1) of this section will be considered a violation of Section 203(a)(1) of the Clean Air Act.

14. A new § 86.087-9 is added to read as follows:

§ 86.087-9 Emission standards for 1987 light-duty trucks.

(a)(1) The standards set forth in paragraphs (a) through (c) of this section shall apply to light-duty trucks sold for principal use at other than a designated high-altitude location. Exhaust

emissions from 1984 and later model year light-duty trucks shall not exceed:

(i) *Hydrocarbons*. 0.8 gram per vehicle mile (0.5 gram per vehicle kilometer).

(ii)(A) *Carbon monoxide*. 10 grams per vehicle mile (6.2 grams per vehicle kilometer).

(B) *Gasoline-fueled vehicles*. 0.50 percent of exhaust gas flow at curb idle.

(iii) *Oxides of nitrogen*. 2.3 grams per vehicle mile (1.4 grams per vehicle kilometer).

(iv) *Particulate emissions* (diesels only). 0.26 gram per vehicle mile (0.162 gram per vehicle kilometer). A manufacturer may elect to include all or some of its diesel light-duty truck engine families in the particulate averaging program, provided that trucks produced for sale in California or in designated high-altitude areas may be averaged only within each of those areas. If the manufacturer elects to average both diesel light-duty vehicles and diesel light-duty trucks together in the particulate averaging program, its composite particulate standard applies to the combined set of diesel light-duty vehicles and diesel light-duty trucks included in the average and is calculated as defined in § 86.087-2.

(2) The standards set forth in paragraph (a)(1)(i), (a)(1)(ii)(A), (a)(1)(iii), and (a)(1)(iv) of this section refer to the exhaust emitted over a driving schedule as set forth in Subpart B of this part and measured and calculated in accordance with those procedures. The standard set forth in paragraph (a)(1)(ii)(B) of this section refers to the exhaust emitted at curb idle and measured and calculated in accordance with the procedures set forth in Subpart P of this part.

(b)(1) Fuel evaporative emissions from 1987 and later model year gasoline-fueled light-duty trucks shall not exceed:

(i) *Hydrocarbons*. 2.0 grams per test.

(2) The standard set forth in paragraph (b)(1) of this section refers to a composite sample of the fuel evaporative emissions collected under the conditions set forth in Subpart B of this part and measured in accordance with those procedures.

(c) No crankcase emissions shall be discharged into the ambient atmosphere from any 1987 and later model year light-duty truck.

(d)(1) Model year 1987 and later light-duty trucks sold for principal use at a designated high-altitude location shall be capable of meeting the following exhaust emission standards when tested under high-altitude conditions:

(i) *Hydrocarbons*. 1.0 grams per vehicle mile (0.62 grams per vehicle kilometer);

(ii) *Carbon Monoxide*. 14 grams per vehicle mile (8.7 grams per vehicle kilometer);

(iii) *Oxides of Nitrogen*. 2.3 grams per vehicle mile (1.43 grams per vehicle kilometer).

(2) The standards set forth in paragraph (d)(1) of this section refer to the exhaust emitted over a driving schedule as set forth in Subpart B of this part and measured and calculated in accordance with those procedures.

(e)(1) Fuel evaporative emissions from 1987 and later model year gasoline-fueled light-duty trucks sold for principal use at a designated high-altitude location shall not exceed 2.6 grams per test when tested under high-altitude conditions.

(2) The standard set forth in paragraph (e)(1) of this section refers to a composite sample of the fuel evaporative emissions collected under the conditions set forth in Subpart B of this part and measured in accordance with those procedures.

(f) No crankcase emissions shall be discharged into the ambient atmosphere from any 1987 and later model year light-duty trucks sold for principal use at a designated high-altitude location.

(g)(1) Any light-duty truck that a manufacturer wishes to certify for sale at low altitude must be capable of meeting high-altitude emission standards (specified in paragraphs (d) through (f) of this section). The manufacturer may specify vehicle adjustments or modifications to allow the vehicle to meet high-altitude standards but these adjustments or modifications may not alter the vehicle's basic engine, inertia weight class, transmission configuration, and axle ratio.

(i) A manufacturer may certify unique configurations to meet the high-altitude standards but is not required to certify these vehicle configurations to meet the low-altitude standards.

(ii) Any adjustments or modifications that are recommended to be performed on vehicles to satisfy the requirements of paragraph (g)(1) of this section:

(A) Shall be capable of being effectively performed by commercial repair facilities.

(B) Must be included in the manufacturer's application for certification.

(2) The manufacturer may exempt 1985 and later model year vehicles from compliance with the high-altitude emission standards set forth in paragraphs (d) and (e) of this section if the vehicles are not intended for sale at high altitude and if the following requirements are met. A vehicle configuration shall only be considered

eligible for exemption if the requirements of either paragraph (g)(2) (i), (ii), (iii), or (iv) of this section are met.

(i) Its design parameters (displacement-to-weight ratio (D/W) and engine speed-to-vehicle-speed ratio (N/V)) fall within the exempted range for that manufacturer for that year. The exempted range is determined according to the following procedure:

(A) The manufacturer shall graphically display the D/W and N/V data of all vehicle configurations it will offer for the model year in question. The axis of the abscissa shall be D/W (where (D) is the engine displacement expressed in cubic centimeters and (W) is the gross vehicle weight (GVW) expressed in pounds), and the axis of the ordinate shall be N/V (where (N) is the crankshaft speed expressed in revolutions per minute and (V) is the vehicle speed expressed in miles per hour). At the manufacturer's option, either the 1:1 transmission gear ratio or the lowest numerical gear ratio available in the transmission will be used to determine N/V. The gear selection must be the same for all N/V data points on the manufacturer's graph. For each transmission/axle ratio combination, only the lowest N/V value shall be used in the graphical display.

(B) The product line is then defined by the equation, $N/V = C(D/W)^{-0.9}$, where the constant, C, is determined by the requirement that all the vehicle data points either fall on the line or lie to the upper right of the line as displayed on the graphs.

(C) The exemption line is then defined by the equation, $N/V = C(0.84 D/W)^{-0.9}$, where the constant, C is the same as that found in paragraph (g)(2)(i)(B) of this section.

(D) The exempted range includes all values of N/V and D/W which simultaneously fall to the lower left of the exemption line as drawn on the graph.

(ii) Its design parameters fall within the alternate exempted range for that manufacturer that year. The alternate exempted range is determined by substituting rated horsepower (hp) for displacement (D) in the exemption procedure described in paragraph (g)(2)(i) of this section and by using the product line $N/V = C(\text{hp}/W)^{-0.9}$.

(A) Rated horsepower shall be determined by using the Society of Automotive Engineers Test Procedure J 1349, or any subsequent version of that test procedure. Any of the horsepower determinants within that test procedure may be used, as long as it is used consistently throughout the

manufacturer's product line in any model year.

(B) No exemptions will be allowed under paragraph (g)(2)(ii) of this section to any manufacturer that has exempted vehicle configurations as set forth in paragraph (g)(2)(i) of this section.

(iii) Its acceleration time (the time it takes a vehicle to accelerate from 0 to a speed not less than 40 miles per hour and not greater than 50 miles per hour) under high-altitude conditions is greater than the largest acceleration time under low-altitude conditions for that manufacturer for that year. The procedure to be followed in making this determination is:

(A) The manufacturer shall list the vehicle configuration and acceleration time under low-altitude conditions of that vehicle configuration which has the highest acceleration time under low-altitude conditions of all the vehicle configurations it will offer for the model year in question. The manufacturer shall also submit a description of the methodology used to make this determination.

(B) The manufacturer shall then list the vehicle configurations and acceleration times under high-altitude conditions of all those vehicle configurations which have higher acceleration times under high-altitude conditions than the highest acceleration time at low altitude identified in paragraph (g)(2)(iii)(A) of this section.

(iv) In lieu of performing the test procedure of paragraph (g)(2)(iii) of this section, its acceleration time can be estimated based on the manufacturer's engineering evaluation, in accordance with good engineering practice, to meet the exemption criteria of paragraph (g)(2)(iii) of this section.

(3) The sale of a vehicle for principal use at a designated high-altitude location that has been exempted as set forth in paragraph (g)(2) of this section will be considered a violation of Section 203(a)(1) of the Clean Air Act.

15. A new § 86.087-29 is added to read as follows:

§ 86.087-29 Testing by the Administrator.

(a)(1) Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.

(2) The Administrator may require that any one or more of the test vehicles be submitted to him, at such place or places as he may designate, for the purposes of conducting emissions tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for

test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on a test vehicle, the results of that test shall, unless subsequently invalidated by the Administrator, comprise the official data for the vehicle at the prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards (or the family particulate emission limit, as appropriate).

(ii) Whenever the Administrator does not conduct a test on a test vehicle at a test point, the manufacturer's test data will be accepted as the official data for that point: *Provided*, That if the Administrator makes a determination based on testing under paragraph (a)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment used by the Administrator, no manufacturer's test data will be accepted for purposes of certification until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer, *and further provided*, That if the Administrator has reasonable basis to believe that any test data submitted by the manufacturer is not accurate or has been obtained in violation of any provisions of this part, the Administrator may refuse to accept that data as the official data pending retesting or submission or further information. If the manufacturer conducts more than one test on a vehicle, as authorized under § 86.084-26 (a)(3)(i)(A) or (b)(4)(i)(A), the data from the last test in that series of tests on that vehicle, will constitute the official data.

(iii)(A)(1) The Administrator may adjust or cause to be adjusted any adjustable parameter of an emission data vehicle or engine which the Administrator has determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.085-22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.086-22(e)(3)(i), prior to the performance of any tests to determine whether such vehicle or engine conforms to applicable emission standards, including tests performed by the manufacturer under § 86.087-23(c)(1). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which

causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the engine before it accumulated any dynamometer service, all other parameters being identically adjusted for the purpose of the comparison. The Administrator, in making or specifying such adjustments, will consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occur on in-use light-duty vehicles or light-duty trucks. In determining likelihood, the Administrator will consider factors such as, but not limited to, the effect of the adjustment on vehicle performance characteristics and surveillance information from similar in-use vehicles.

(2) For those vehicles or engine parameters which the Administrator has not determined to be subject to adjustment during certification and Selective Enforcement Audit testing in accordance with § 86.087-22(3)(1), the emission-data vehicle presented to the Administrator for testing shall be calibrated within the production tolerances applicable to the manufacturer's specifications to be shown on the vehicle label (see § 86.087-35(a)(1)(iii)(D) or (a)(2)(iii)(D)) as specified in the application for certification. If the Administrator determines that a vehicle is not within such tolerances, the vehicle will be adjusted, at the facility designated by the Administrator, prior to the test and an engineering report shall be submitted to the Administrator describing the corrective action taken. Based on the engineering report, the Administrator will determine if the vehicle will be used as an emission-data vehicle.

(B) If the Administrator determines that the test data developed on an emission-data vehicle under paragraph (a)(3)(i) of this section would cause that vehicle to fail due to excessive 4,000-mile emissions or by application of the appropriate deterioration factor, then the following procedure shall be observed:

(1) The manufacturer may request a retest. Before the retest, those vehicle or engine parameters which the Administrator has not determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.085-22(e)(1) may be readjusted to manufacturer's specification, if these adjustments were made incorrectly prior to the first test. The Administrator may adjust or cause to be adjusted any parameter which the Administrator has determined to be

subject to adjustment to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.085-22(e)(3)(i). Other maintenance or repairs may be performed in accordance with § 86.084-25. All work on the vehicle shall be done at such location and under such conditions as the Administrator may prescribe.

(2) The vehicle will be retested by the Administrator and the results of this test shall comprise the official data for the emission-data vehicle.

(iv) If sufficient durability data are not available at the time of any emission test conducted under paragraph (a)(2) of this section to enable the Administrator to determine whether an emission-data vehicle would fail, the manufacturer may request a retest in accordance with the provisions of paragraphs (a)(3)(iii) (A) and (B) of this section. If the manufacturer does not promptly make such request, he shall be deemed to have waived the right to a retest. A request for retest must be made before the manufacturer removes the vehicle from the test premises.

(b)(1) Paragraph (b) of this section applies to heavy-duty engines.

(2) The Administrator may require that any one or more of the test engines be submitted to him, at such place or places as he may designate, for the purpose of conducting emissions tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on a test engine the results of that test, unless subsequently invalidated by the Administrator, shall comprise the official data for the engine at that prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

(ii) Whenever the Administrator does not conduct a test on a test engine at a test point, the manufacturer's test data will be accepted as the official data for that test point: *Provided*, That if the Administrator makes a determination based on testing under paragraph (b)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment used by the Administrator, no manufacturer's test data will be accepted for purposes of certification

until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer: *And further provided*, That if the Administrator has reasonable basis to believe that any test data submitted by the manufacturer is not accurate or has been obtained in violation of any provision of this part, the Administrator may refuse to accept that data as the official data pending retesting or submission of further information.

(iii)(A)(1) The Administrator may adjust or cause to be adjusted any adjustable parameter of an emission-data engine which the Administrator has determined to be subject to adjustment for certification testing in accordance with § 86.085-22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.085-22(e)(3)(i), prior to the performance of any tests to determine whether such engine conforms to applicable emission standards, including tests performed by the manufacturer under § 86.087-23(c)(2). The Administrator, in making or specifying such adjustments, may consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occur on in-use heavy-duty engines. In determining likelihood, the Administrator may consider factors such as, but not limited to, the effect of the adjustment on engine performance characteristics and surveillance information from similar in-use engines.

(2) For those engine parameters which the Administrator has not determined to be subject to adjustment for certification testing in accordance with § 86.085-22(e)(1), the emission-data engine presented to the Administrator for testing shall be calibrated within the production tolerances applicable to the manufacturer's specifications to be shown on the engine label (see § 86.087-35(a)(3)(iii)) as specified in the application for certification. If the Administrator determines that an engine is not within such tolerances, the engine shall be adjusted at the facility designated by the Administrator prior to the test and an engineering report shall be submitted to the Administrator describing the corrective action taken. Based on the engineering report, the Administrator will determine if the engine shall be used as an emission-data engine.

(B) If the Administrator determines that the test data developed under paragraph (b)(3)(iii)(A) of this section

would cause the emission-data engine to fail due to excessive 125-hour emission values or by the application of the appropriate deterioration factor, then the following procedure shall be observed:

(1) The manufacturer may request a retest. Before the retest, those engine parameters which the Administrator has not determined to be subject to adjustment for certification testing in accordance with § 86.085-22(e)(1) may be readjusted to the manufacturer's specifications, if these adjustments were made incorrectly prior to the first test. The Administrator may adjust or cause to be adjusted any parameter which the Administrator has determined to be subject to adjustment in accordance with § 86.085-22(e)(3)(i). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the engine before it accumulated any dynamometer service, all other parameters being identically adjusted for the purpose of the comparison. Other maintenance or repairs may be performed in accordance with § 86.084-25. All work on the vehicle shall be done at such location and under such conditions as the Administrator may prescribe.

(2) The engine will be retested by the Administrator and the results of this test shall comprise the official data for the emission-data engine.

(iv) If sufficient durability data are not available at the time of any emission test conducted under paragraph (b)(2) of this section to enable the Administrator to determine whether an emission-data engine would fail, the manufacturer may request a retest in accordance with the provisions of paragraph (b)(3)(iii)(B) (1) and (2) of this section. If the manufacturer does not promptly make such request, he shall be deemed to have waived the right to a retest. A request for retest must be made before the manufacturer removes the engine from the test premises.

(c)(1) Paragraph (c) of this section applies to gasoline-fueled heavy-duty vehicles.

(2) The Administrator may require that any one or more of the evaporative emission family-system combinations included in the manufacturer's statement(s) of compliance be installed on an appropriate vehicle and such vehicle be submitted to him, at such place or places as he may designate, for the purpose of conducting emissions

tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on an evaporative emission family-system combination the results of that test, unless subsequently invalidated by the Administrator, shall comprise the official data for the evaporative emission family-system combination and the manufacturer's data, analyses, etc., shall not be used in determining compliance with emission standards.

(ii) Whenever the Administrator does not conduct a test on an evaporative emission family-system combination, the manufacturer's test data will be accepted as the official data: *Provided*, That if the Administrator makes a determination based on testing under paragraph (c)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment used by the Administrator, no manufacturer's test data will be accepted for purposes of certification until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer: *And further provided*, That if the Administrator has reasonable basis to believe that any test data, analyses, or other information submitted by the manufacturer is not accurate or has been obtained in violation of any provision of this part, the administrator may refuse to accept those data, analyses, etc., as the official data pending retesting or submission of further information.

16. A new § 86.087-30 is added to read as follows:

§ 86.087-30 Certification.

(a)(1)(i) If, after a review of the test reports and data submitted by the manufacturer, data derived from any inspection carried out under § 86.078-7(c), and any other pertinent data or information, the administrator determines that a test vehicle(s) (or test engine(s)) meet(s) the requirements of the Act and of this subpart, he will issue a certificate of conformity with respect to such vehicle(s) (or engine(s)) except in cases covered by paragraphs (a)(1)(ii) and (c) of this section.

(ii) *Gasoline-fueled heavy-duty vehicles.* If, after a review of the statement(s) of compliance submitted by the manufacturer under § 86.087-23(b)(4)

and any other pertinent data or information, the Administrator determines that the requirements of the Act and this subpart have been met, he will issue one certificate of conformity per manufacturer with respect to the evaporative emission family(s) covered by such statement(s) except in cases covered by paragraph (c) of this section.

(2) Such certificate will be issued for such period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary or appropriate to assure that any new motor vehicle (or new motor vehicle engine) covered by the certificate will meet the requirements of the Act and of this part.

(3)(i) One such certificate will be issued for each engine family. For gasoline-fueled light-duty vehicles and light-duty trucks, one such certificate will be issued for each engine family-evaporative emission family combination.

(A) *Light-Duty Vehicles.* Each certificate will certify compliance with no more than one set of standards (or one family particulate emission limit, as appropriate).

(B) *Light-Duty Trucks.* Each certificate will certify compliance with no more than one set of standards (or one family particulate emission limit, as appropriate) except for low-altitude standards and high-altitude standards. The certificate shall state that it covers vehicles sold or delivered to an ultimate purchaser for principal use at a designated high-altitude location only if the vehicle conforms in all material respects to the design specifications that apply to those vehicles described in the application for certification at high altitude.

(ii) For gasoline-fueled heavy-duty vehicles, one such certificate will be issued for each manufacturer and will certify compliance for those vehicles previously identified in that manufacturer's statement(s) of compliance as required in § 86.087-23(b)(4) (i) and (ii).

(iii) For diesel light-duty vehicles and light-duty trucks included in the particulate averaging program, the manufacturer may at any time during production elect to change the level of any family particulate emission limit by demonstrating compliance with the new limit as described in §§ 86.087-28(a)(6) and 86.087-28(b)(7). New certificates issued under this paragraph will be applicable only for vehicles produced subsequent to the date of issuance.

(4)(i) The adjustment or modification of any light-duty truck in accordance with instructions provided by the manufacturer for the altitude where the

vehicle is principally used will not be considered a violation of Section 203(a)(3) of the Clean Air Act.

(ii) A violation of Section 203(a)(1) of the Clean Air Act occurs when a manufacturer sells or delivers to an ultimate purchaser any light-duty vehicle or light-duty truck, subject to the regulations under the Act, under any of the conditions specified in the remainder of this paragraph.

(A) When a light-duty vehicle or light-duty truck is not configured to meet high-altitude requirements;

(1) At a designated high-altitude location, unless such manufacturer has reason to believe that such vehicle will not be sold to an ultimate purchaser for principal use at a designated high-altitude location; or

(2) At a location other than a designated high-altitude location, when such manufacturer has reason to believe that such motor vehicle will be sold to an ultimate purchaser for principal use at a designated high-altitude location.

(B) When a light-duty vehicle is not configured to meet low-altitude requirements, as provided in § 86.085-8(i):

(1) At a designated high-altitude location, unless such manufacturer has reason to believe that such vehicle will not be sold to an ultimate purchaser for principal use at a designated low-altitude location; or

(2) At a location other than a designated low-altitude location, when such manufacturer has reason to believe that such motor vehicle will be sold to an ultimate purchaser for principal use at a designated low-altitude location.

(iii) A manufacturer shall be deemed to have reason to believe that a light-duty vehicle that has been exempted from compliance with emission standards at high-altitude, or a light-duty truck which is not configured to meet high-altitude requirements, will not be sold to an ultimate purchaser for principal use at a designated high-altitude location if the manufacturer has informed its dealers and field representatives about the terms of these high-altitude regulations, has not caused the improper sale itself, and has taken reasonable action which shall include, but not be limited to, either paragraph (a)(4)(iii) (A) or (B), and (C) of this section:

(A) Requiring dealers in designated high-altitude locations to submit written statements to the manufacturer signed by the ultimate purchaser that a vehicle which is not configured to meet high-altitude requirements will not be used principally at a designated high-altitude location; requiring dealers in counties

contiguous to designated high-altitude locations to submit written statements to the manufacturer, signed by the ultimate purchaser who represents to the dealer in the normal course of business that he or she resides in a designated high-altitude location, that a vehicle which is not configured to meet high-altitude requirements will not be used principally at a designated high-altitude location; and for each sale or delivery of fleets of ten or more such vehicles in a high-altitude location or in counties contiguous to high-altitude locations, requiring either the selling dealer or the delivering dealer to submit written statements to the manufacturer, signed by the ultimate purchaser who represents to the dealer in the normal course of business that he or she resides in a designated high-altitude location, that a vehicle which is not configured to meet high-altitude requirements will not be used principally at a designated high-altitude location. In addition, the manufacturer will make available to EPA, upon reasonable written request (but not more frequently than quarterly, unless EPA has demonstrated that it has substantial reason to believe that an improperly configured vehicle has been sold) sales, warranty, or other information pertaining to sales of vehicles by the dealers described above maintained by the manufacturer in the normal course of business relating to the altitude configuration of vehicles and the locations of ultimate purchasers; or

(B) Implementing a system which monitors factory orders of low-altitude vehicles by high-altitude dealers, or through other means, identifies dealers that may have sold or delivered a vehicle not configured to meet the high-altitude requirements to an ultimate purchaser for principal use at a designated high-altitude location; and making such information available to EPA upon reasonable written request (but not more frequently than quarterly, unless EPA has demonstrated that it has substantial reason to believe that an improperly configured vehicle has been sold); and

(C) Within a reasonable time after receiving written notice from EPA or a State or local government agency that a dealer may have improperly sold or delivered a vehicle not configured to meet the high-altitude requirements to an ultimate purchaser residing in a designated high-altitude location, or based on information obtained pursuant to paragraph (a)(4)(iii) of this section that a dealer may have improperly sold or delivered a significant number of such vehicles to ultimate purchasers so residing, reminding the dealer in writing

of the requirements of these regulations, and, where appropriate, warning the dealer that sale by the dealer of vehicles not configured to meet high-altitude requirements may be contrary to the terms of its franchise agreement with the manufacturer and the dealer certification requirements of § 85.2108 of this chapter.

(iv) A manufacturer shall be deemed to have reason to believe that a light-duty vehicle which has been exempted from compliance with emission standards at low-altitude, as provided in Section 86.084-8(i), will not be sold to an ultimate purchaser for principal use at a designated low-altitude location if the manufacturer has informed its dealers and field representatives about the terms of these high-altitude regulations, has not caused the improper sale itself, and has taken reasonable action which shall include, but not be limited to, either paragraph (a)(4)(iv) (A) or (B), and (C) of this section:

(A) Requiring dealers in designated low-altitude locations to submit written statements to the manufacturer signed by the ultimate purchaser that a vehicle which is not configured to meet low-altitude requirements will not be used principally at a designated low-altitude location; requiring dealers in counties contiguous to designated low-altitude locations to submit written statements to the manufacturer, signed by the ultimate purchaser who represents to the dealer in the normal course of business that he or she resides in a designated low-altitude location, that a vehicle which is not configured to meet low-altitude requirements will not be used principally at a designated low-altitude location; and for each sale or delivery of fleets of ten or more such vehicles in a low-altitude location or in counties contiguous to low-altitude locations, requiring either the selling dealer or the delivering dealer to submit written statements to the manufacturer, signed by the ultimate purchaser who represents to the dealer in the normal course of business that he or she resides in a designated low-altitude location, that a vehicle which is not configured to meet low-altitude requirements will not be used principally at a designated high-altitude location. In addition, the manufacturer will make available to EPA, upon reasonable written request (but not more frequently than quarterly, unless EPA has demonstrated that it has substantial reason to believe that an improperly configured vehicle has been sold), sales, warranty, or other information pertaining to sales of vehicles by the dealers described above

maintained by the manufacturer in the normal course of business relating to the altitude configuration of vehicles and the locations of ultimate purchasers; or

(B) Implementing a system which monitors factory orders of high-altitude vehicles by low-altitude dealers or through other means, identifies dealers that may have sold or delivered a vehicle not configured to meet the low-altitude requirements to an ultimate purchaser for principal use at a designated low-altitude location; and making such information available to EPA upon reasonable written request (but not more frequently than quarterly, unless EPA has demonstrated that it has substantial reason to believe that an improperly configured vehicle has been sold); and

(C) Within a reasonable time after receiving written notice from EPA or a state or local government agency that a dealer may have improperly sold or delivered a vehicle not configured to meet the low-altitude requirements to an ultimate purchaser residing in a designated low-altitude location, or based on information obtained pursuant to paragraph (a)(4)(iv) of this section that a dealer may have improperly sold or delivered a significant number of such vehicles to ultimate purchasers so residing, reminding the dealer in writing of the requirements of these regulations, and, where appropriate, warning the dealer that sale by the dealer of vehicles not configured to meet low-altitude requirements may be contrary to the terms of its franchise agreement with the manufacturer and the dealer certification requirements of § 85.2108 of this chapter.

(5)(i) For the purpose of paragraph (a) of this section, a "designated high-altitude location" is any county which has substantially all of its area located above 1,219 meters (4,000 feet) and:

(A) Requested an extension past the attainment date of December 31, 1982, for compliance with either the National Ambient Air Quality Standards for carbon monoxide or ozone, as indicated in Part 52 (Approval and Promulgation of Implementation Plans) of this title; or

(B) Is in the same state as a county designated as a high-altitude location according to paragraph (a)(5)(i)(A) of this section.

(ii) The designated high-altitude locations defined in paragraph (a)(5)(i) of this section are listed below:

State of Colorado

Adams	Chaffee
Alamosa	Cheyenne
Arapahoe	Clear Creek
Archuleta	Connejo
Boulder	Costilla

Crowley
Custer
Delta
Denver
Dolores
Douglas
Eagle
Elbert
El Paso
Fremont
Garfield
Gilpin
Grand
Gunnison
Hinsdale
Huerfano
Jackson
Jefferson
Kit Carson
Lake
La Plata
Larimer
Las Animas

Lincoln
Mesa
Mineral
Moffat
Montezuma
Montrose
Morgan
Otero
Ouray
Park
Pitkin
Pueblo
Rio Blanco
Rio Grande
Routt
Saguache
San Juan
San Miguel
Summit
Teller
Washington
Weld

State of Nevada

Carson City
Douglas
Elko
Esmeralda
Eureka
Humboldt
Lander
Lincoln

Lyon
Mineral
Nye
Pershing
Storey
Washoe
White Pine

State of New Mexico

Bernalillo
Catron
Colfax
Curry
De Baca
Grant
Guadalupe
Harding
Hidalgo
Lincoln
Los Alamos
Luna
McKinley
Mora

Otero
Rio Arriba
Roosevelt
Sandoval
San Juan
San Miguel
Santa Fe
Sierra
Socorro
Taos
Torrance
Union
Valencia

State of Utah

Beaver
Box Elder
Cache
Carbon
Daggett
Davis
Duchesne
Emery
Garfield
Grand
Iron
Juab
Kane
Millard

Morgan
Piute
Rich
Salt Lake
San Juan
Sanpete
Sevier
Summit
Tooele
Uintah
Utah
Wasatch
Wayne
Weber

State of Arizona

Apache
Cochise
Coconino

Navajo
Yavapai

State of Idaho

Bannock
Bear Lake
Bingham
Blaine
Bonneville
Butte
Camas
Caribou
Cassia
Clark
Custer

Franklin
Fremont
Jefferson
Lemhi
Madison
Minidoka
Oneida
Power
Teton
Valley

State of Montana

Beaverhead
Deer Lodge
Gallatin
Jefferson
Judith Basin
Madison

Meagher
Park
Powell
Silver Bow
Wheatland

State of Nebraska

Banner
Cheyenne

Kimball
Sioux

State of Oregon

Harney
Klamath

Lake

State of Texas

Jeff Davis
Hudspeth

Parmer

State of Wyoming

Albany
Campbell
Carbon
Converse
Fremont
Goshen
Hot Springs
Johnson
Laramie
Lincoln

Natrona
Niobrara
Park
Platte
Sublette
Sweetwater
Teton
Uinta
Washakie
Weston

(iii) For the purpose of paragraph (a) of this section, a "designated low-altitude location" is any county which has substantially all of its area located below 1,219 meters (4,000 feet).

(iv) The designated low-altitude locations so defined include all counties in the United States which are not listed in either paragraph (a)(5)(ii) of this section or in the list below:

(6) Catalyst-equipped vehicles, otherwise covered by a certificate, which are driven outside the United States, Canada, and Mexico will be presumed to have been operated on leaded gasoline resulting in deactivation of the catalysts. If these vehicles are imported or offered for importation without retrofit of the catalyst, they will be considered not to be within the coverage of the certificate unless included in a catalyst control program operated by a manufacturer or a United States Government agency and approved by the Administrator.

(7) For incomplete light-duty trucks, a certificate covers only those new motor vehicle which, when completed by having a primary load-carrying device or container attached, conform to the maximum curb weight and frontal area limitations described in the application for certification as required in § 86.087-21(d).

(8) For heavy-duty engines, a certificate covers only those new motor vehicle engines installed in heavy-duty vehicles which conform to the minimum gross vehicle weight rating, curb weight,

or frontal area limitations for heavy-duty vehicles described in § 86.082-2.

(9) For incomplete gasoline-fueled heavy-duty vehicles a certificate covers only those new motor vehicles which, when completed, conform to the nominal maximum fuel tank capacity limitations as described in the application for certification as required in § 86.087-21(e).

(10) For diesel light-duty vehicles and diesel light-duty truck families which participate in a particulate averaging program, the manufacturer's production weighted average of the particulate emission limits of all engine families in a participating class or classes shall not exceed the applicable diesel particulate standard, or composite standard, as appropriate, at the end of the model year, as determined in accordance with 40 CFR Part 86. The certificate shall be void *ab initio* for those vehicles causing any exceedance of the particulate standard.

(b)(1) The Administrator will determine whether a vehicle (or engine) covered by the application complies with applicable standards (or family particulate emission limit, as appropriate) by observing the following relationships:

(i) *Light-duty vehicles.* (A) The durability-data vehicle(s) selected under § 86.085-24(c)(1)(i) shall represent all vehicles of the same engine-system combination.

(B) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(ii) through (iv) shall represent all vehicles of the same engine-system combination as applicable.

(C) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(vii) (A) and (B) shall represent all vehicles of the same evaporative control system within the evaporative family.

(ii) *Light-duty trucks.*

(A) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(ii), shall represent all vehicles of the same engine-system combination as applicable.

(B) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(vii) (A) and (B) shall represent all vehicles of the same evaporative control system within the evaporative family.

(C) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(v) shall represent all vehicles of the same engine-system combination as applicable.

(D) The emission-data vehicle(s) selected under § 86.085-24(b)(1)(viii) shall represent all vehicles of the same evaporative control system within the

evaporative emission family, as applicable.

(iii) *Heavy-duty engines.* (A) A gasoline-fueled emission-data test engine selected under § 86.085-24(b)(2)(iv) shall represent all engines in the same family of the same engine displacement-exhaust emission control system combination.

(B) A gasoline-fueled emission-data test engine selected under § 86.085-24(b)(2)(iii) shall represent all engines in the same engine family of the same engine displacement-exhaust emission control system combination.

(C) A diesel emission-data test engine selected under § 86.085-24(b)(3)(ii) shall represent all engines in the same engine-system combination.

(D) A diesel emission-data test engine selected under § 86.085-24(b)(3)(iii) shall represent all engines of that emission control system at the rated fuel delivery of the test engine.

(iv) *Gasoline-fueled heavy-duty vehicles.* A statement of compliance submitted under § 86.087-23(b)(4)(i) or (ii) shall represent all vehicles in the same evaporative emission family-evaporative emission control system combination.

(2) The Administrator will proceed as in paragraph (a) of this section with respect to the vehicles (or engines) belonging to an engine family or engine family-evaporative emission family combination (as applicable), all of which comply with all applicable standards (or the family emission limit, as appropriate).

(3) If, after a review of the test reports and data submitted by the manufacturer, data derived from any additional testing conducted pursuant to § 86.087-29, data or information derived from any inspection carried out under § 86.078-7(c) or any other pertinent data or information, the Administrator determines that one or more test vehicles (or test engines) of the certification test fleet do not meet applicable standards (or family particulate emission limits, as appropriate), he will notify the manufacturer in writing, setting forth the basis for his determination. Within 30 days following receipt of the notification, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the Administrator's determination and data in support of such objections. If, after a review of the request and supporting data, the Administrator finds that the request raises a substantial factual

issue, he shall provide the manufacturer a hearing in accordance with § 86.078-6 with respect to such issue.

(4) For light-duty vehicles and light-duty trucks the manufacturer may, at its option, proceed with any of the following alternatives with respect to an emission-data vehicle determined not in compliance with all applicable standards (or the family particulate emission limit, as appropriate) for which it was tested:

(i) Request a hearing under § 86.078-6; or

(ii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed, from his application;

(A) If the failed vehicle was tested for compliance with exhaust emission standards (or the family particulate emission limit, as appropriate) only: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle to be tested for exhaust emission compliance only.

(B) If the failed vehicle was tested for compliance with both exhaust and evaporative emission standards: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle which will be tested for compliance with both exhaust and evaporative emission standards. If one vehicle cannot be selected in accordance with the selection criteria employed in selecting the failed vehicle, then two vehicles may be selected (i.e., one vehicle to satisfy the exhaust emission vehicle selection criteria and one vehicle to satisfy the evaporative emission vehicle selection criteria). The vehicle selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicle selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards; or

(iii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed from the application and add a vehicle configuration(s) (or evaporative vehicle configuration(s), as applicable) not previously listed. The Administrator may require, if applicable, that the failed vehicle be modified to the new engine code (or evaporative emission code, as applicable) and demonstrate by testing that it meets applicable standards (or the family particulate emission limit, as appropriate) for which it was originally

tested. In addition, the Administrator may select, in accordance with the vehicle selection criteria given in § 86.084-24(b), a new emission-data vehicle or vehicles. The vehicles selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards (or the family particulate emission limit, as appropriate) only. The vehicles selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards (or the family particulate emission limit, as appropriate); or

(iv) Correct a component or system malfunction and show that with a correctly functioning system or component the failed vehicle meets applicable standards (or the family particulate emission limit, as appropriate) for which it was originally tested. The Administrator may require a new emission-data vehicle, of identical vehicle configuration (or evaporative vehicle configuration, as applicable) to the failed vehicle, to be operated and tested for compliance with the applicable standards (or the family particulate emission limit, as appropriate) for which the failed vehicle was originally tested.

(5) For heavy-duty engines the manufacturer may, at his option, proceed with any of the following alternatives with respect to any engine family represented by a test engine(s) determined not in compliance with applicable standards:

(i) Request a hearing under § 86.078-6; or

(ii) Delete from the application for certification the engines represented by the failing test engine. (Engines so deleted may be included in a later request for certification under 86.079-32.) The Administrator may then select in place of each failing engine an alternate engine chosen in accordance with selection criteria employed in selecting the engine that failed; or

(iii) Modify the test engine and demonstrate by testing that it meets applicable standards. Another engine which is in all material respects the same as the first engine, as modified, may then be operated and tested in accordance with applicable test procedures.

(6) If the manufacturer does not request a hearing or present the required data under paragraphs (b) (4) or (5) of this section (as applicable), the Administrator will deny certification.

(c)(1) Notwithstanding the fact that any certification vehicle(s) (or

certification engine(s)) may comply with other provisions of this subpart, the Administrator may withhold or deny the issuance of a certificate of conformity (or suspend or revoke any such certificate which has been issued) with respect to any such vehicle(s) (or engine(s)) if:

(i) The manufacturer submits false or incomplete information in his application for certification thereof;

(ii) The manufacturer renders inaccurate any test data which he submits pertaining thereto or otherwise circumvents the intent of the Act, or of this part with respect to such vehicle (or engine);

(iii) Any EPA Enforcement Officer is denied access on the terms specified in § 86.078-7(c) to any facility or portion thereof which contains any of the following:

(A) The vehicle (or engine);

(B) Any components used or considered for use in its modification or buildup into a certification vehicle (or certification engine);

(C) Any production vehicle (or production engine) which is or will be claimed by the manufacturer to be covered by the certificate;

(D) Any step in the construction of a vehicle (or engine) described in paragraph (c)(iii)(C) of this section;

(E) Any records, documents, reports, or histories required by this part to be kept concerning any of the above;

(iv) Any EPA Enforcement Officer is denied "reasonable assistance" (as defined in § 86.078-7(c)) in examining any of the items listed in paragraph (c)(1)(iii) of this section.

(2) The sanctions of withholding, denying, revoking, or suspending of a certificate may be imposed for the reasons in paragraphs (c)(1)(i), (ii), (iii), or (iv) of this section only when the infraction is substantial.

(3) In any case in which a manufacturer knowingly submits false or inaccurate information or knowingly renders inaccurate or invalid any test data or commits any other fraudulent acts and such acts contribute substantially to the Administrator's decision to issue a certificate of conformity, the Administrator may deem such certificate void ab initio.

(4) In any case in which certification of a vehicle (or engine) is proposed to be withheld, denied, revoked, or suspended under paragraph (c)(1) (iii) or (iv) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.078-7(c) in fact occurred, the manufacturer, if he wishes to contend that, even though the violation occurred, the vehicle (or

engine) in question was not involved in the violation to a degree that would warrant withholding denial, revocation, or suspension of certification under either paragraph (c)(1)(iii) or (iv) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(5) Any revocation or suspension of certification under paragraph (c)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.078-6 hereof.

(ii) Extend no further than to forbid the introduction into commerce of vehicles (or engines) previously covered by the certification which are still in the hands of the manufacturer, except in cases of such fraud or other misconduct as makes the certification invalid ab initio.

(6) The manufacturer may request in the form and manner specified in paragraph (b)(3) of this section that any determination made by the Administrator under paragraph (c)(1) of this section to withhold or deny certification be reviewed in a hearing conducted in accordance with § 86.078-6. If the Administrator finds, after a review of the request and supporting data, that the request raises a substantial factual issue, he will grant the request with respect to such issue.

(d)(1) *For light-duty vehicles.* Notwithstanding the fact that any vehicle configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of conformity in whole or in part with respect to such vehicle configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.603; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.603; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.609; or

(iv) The manufacturer renders inaccurate any test data which he submits pursuant to § 86.609; or

(v) Any EPA Enforcement Officer is denied access to a facility on the terms specified in § 86.606; or

(vi) Any EPA Enforcement Officer is denied the opportunity on the terms specified in § 86.606, to:

(A) Monitor vehicle selection pursuant to § 86.607, or

(B) Select vehicles for testing pursuant to § 86.607, or

(C) Monitor vehicle testing performed to satisfy any of the requirements of this part; or

(vii) Any EPA Enforcement Officer is denied "reasonable assistance" as defined in § 86.606 in examining any of the items listed in that section; or

(viii) The manufacturer refuses to comply with the requirements of §§ 86.604(a), 86.605, and 86.607, 86.608, 86.610, or 86.611.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (d)(1)(i), (ii), or (viii) of this section where such refusal is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but not be limited to, any uncontrollable factors which results in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanctions of suspending a certificate may be imposed for the reasons in paragraphs (d)(1)(iii), (iv), (v), (vi), or (vii) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision not to suspend or revoke a certificate or conformity in whole or in part, the Administrator may deem such certificate void from the date of such fraudulent act.

(5) In any case in which certification of a vehicle is proposed to be suspended under paragraph (d)(1)(v), (vi), or (vii) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.606 in fact occurred, the manufacturer, if he wishes to contend that even though the violation occurred, the vehicle configuration or engine family in question was not involved in the violation to the degree that would warrant suspension of certification

under either paragraph (d)(1)(v), (vi), or (vii) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (d)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.613 hereof, and

(ii) Not apply to vehicles no longer in the hands of the manufacturer.

(e) *For light-duty trucks and heavy-duty engines.* (1) Notwithstanding the fact that any vehicle configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of conformity in whole or in part with respect to such vehicle or engine configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.1003; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.1003; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.1009; or

(iv) The manufacturer renders inaccurate any test data submitted pursuant to § 86.1009; or

(v) Any EPA Enforcement Officer is denied the opportunity to conduct activities related to entry and access as authorized in § 86.1006 of this part and in a warrant or court order presented to the manufacturer or the party in charge of a facility in question; or

(vi) EPA Enforcement Officers are unable to conduct activities related to entry and access as authorized in § 86.1006 of this part because a manufacturer has located a facility in a foreign jurisdiction where local law prohibits those activities; or

(vii) The manufacturer refuses to or in fact does not comply with the requirements of §§ 86.1004(a), 86.1005, 86.1007, 86.1008, 86.1010, 86.1011, or 86.1013.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (e)(1) (i), (ii), or (vii) of this section where such refusal or denial is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturers to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanction of suspending a certificate may be imposed for the reasons outlined in paragraph (e)(1) (iii), (iv), or (v) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly

rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision not to suspend or revoke a certificate of conformity in whole or in part, the Administrator may deem such certificate void from the date of such fraudulent act.

(5) In any case in which certification of a light-duty truck or heavy-duty engine is proposed to be suspended under paragraph (e)(1)(v) of this section and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.1006 in fact occurred, if the manufacturer wishes to contend that, although the violation occurred, the vehicle or engine configuration or engine family in question was not involved in the violation to a degree that would warrant suspension of certification under paragraph (e)(1)(v) of this section, he shall have the burden of establishing that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (e)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.1014, and

(ii) Not apply to vehicles or engines no longer in the hands of the manufacturer.

(7) Any voiding of a certificate of conformity under paragraph (e)(4) of this section shall be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.1014.

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