public hearings, we ask that you notify the contact person listed above two weeks before the date of the hearing at which you plan to testify. You should include in this notification the date of the hearing at which the testimony will be presented, an estimate of the time required for the presentation, and any need for audio/visual equipment. We also suggest that sufficient copies of the statement or material to be presented be made available to the audience. In addition, it is helpful if the contact person receives a copy of the testimony or material before the hearing.

The hearings will be conducted informally, and technical rules of evidence will not apply. A sign-up sheet will be available at the hearings for scheduling the order of testimony. At the scheduled two day hearing, we suggest that testimony that primarily pertains to the proposed fuel requirements be presented on the first day of the hearings and that testimony that primarily pertains to the proposed vehicle standards (and/or other aspects of this proposal) be presented on the second day of the hearings. Written transcripts of the hearings will be prepared. The official record of the hearings will be kept open for 30 days after the hearing dates to allow submittal of supplementary information.

### VIII. Administrative Requirements

A. Administrative Designation and Regulatory Analysis

Under Executive Order 12866 (58 FR 51735, Oct. 4, 1993), the Agency is required to determine whether this regulatory action would be "significant" and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The order defines a "significant regulatory action" as any regulatory action that is likely to result in a rule that may:

Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment,

public health or safety, or State, local, or tribal governments or communities;

- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or,
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, EPA has determined that this proposal is a "significant regulatory action" because the proposed vehicle standards, gasoline sulfur standards, and other proposed regulatory provisions, if implemented, would have an annual effect on the economy in excess of \$100 million. Accordingly, a Draft Regulatory Impact Analysis (RIA) has been prepared and is available in the docket for this rulemaking. This action was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12866. Written comments from OMB on today's action and responses from EPA to OMB comments are in the public docket for this rulemaking.

### B. Regulatory Flexibility Act

The Regulatory Flexibility Act, 5 U.S.C. 601-612, was amended by the **Small Business Regulatory Enforcement** Fairness Act of 1996 (SBREFA), Public Law 104–121, to ensure that concerns regarding small entities are adequately considered during the development of new regulations that affect them. In response to the provisions of this statute, EPA has identified industries subject to this proposed rule and has provided information to, and received comment from, small entities and representatives of small entities in these industries. An Initial Regulatory Flexibility Analysis (RFA) has been prepared by the Agency to evaluate the economic impacts of today's proposal on small entities. 108 The key elements of the Initial RFA include:

- The number of affected small entities;
- The projected reporting, record keeping, and other compliance requirements of the proposed rule, including the classes of small entities that would be affected and the type of professional skills necessary for preparation of the report or record;
- Other federal rules that may duplicate, overlap, or conflict with the proposed rule; and,
- Any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and that minimize significant economic impacts of the proposed rule on small entities.

The Agency convened a Small Business Advocacy Review Panel (the Panel) under section 609(b) of the Regulatory Flexibility Act as added by SBREFA. The purpose of the Panel was to collect the advice and recommendations of representatives of small entities that could be affected by today's proposed rule and to report on those comments and the Panel's findings as to issues related to the key elements of the Initial Regulatory Flexibility Analysis under section 603 of the Regulatory Flexibility Act. The report of the Panel has been placed in the rulemaking record. 109

The contents of today's proposal and the Initial Regulatory Flexibility Analysis reflect the recommendations in the Panel's report. We summarize our outreach to small entities and our responses to the recommendations of the Panel below. The Agency continues to be interested in the potential impacts of the proposed rule on small entities and welcomes additional comments during the rulemaking process on issues related to such impacts.

### 1. Potentially Affected Small Businesses

The Initial Regulatory Flexibility Analysis identified small businesses from the industries in the following table as subject to the provisions of today's proposed rule:

TABLE VIII.1.—INDUSTRIES CONTAINING SMALL BUSINESSES POTENTIALLY AFFECTED BY TODAY'S PROPOSED RULE

Industry	NAICS a codes	SIC <sup>b</sup> codes	Defined by SBA as a small business if: c
Motor Vehicle Manufacturers	336111 336112	3711	<1000 employees.
Alternative Fuel Vehicle Converters	336120 336311 541690	3592 8931	<500 employees.
	336312		<750 employees.

 $<sup>^{108}\,</sup> The$  Initial RFA is contained in Chapter 8 of the Regulatory Impact Analysis.

<sup>109</sup> Report of the Small Business Advocacy Panel on Tier 2 Light-Duty Vehicle and Light-Duty Truck Emission Standards, Heavy-Duty Gasoline Engine

Standards, and Gasoline Sulfur Standards, October 1998

TABLE VIII.1.—INDUSTRIES CONTAINING SMALL BUSINESSES POTENTIALLY AFFECTED BY TODAY'S PROPOSED RULE— Continued

Industry	NAICS a codes	SIC b codes	Defined by SBA as a small business if: c
	422720 454312 811198 541514	5172 5984 7549 8742	<100 employees. <\$5 million annual sales.
Independent Commercial Importers of Vehicles and Vehicle Components	811112 811198 541514	7533 7549 8742	<\$5 million annual sales.
Petroleum Refiners	324110 422710 422720	2911 5171 5172	<1500 employees. <100 employees.

<sup>a</sup> North American Industry Classification System.

b Standard Industrial Classification system.

The Initial RFA identified about 15 small petroleum refiners, several hundred small petroleum marketers, and about 15 small certifiers of covered vehicles (belonging to the other categories in the above table) that would be subject to the proposed rule.

2. Small Business Advocacy Review Panel and the Evaluation of Regulatory Alternatives

The Small Business Advocacy Review Panel was convened by EPA on August 27, 1998. The Panel consisted of representatives of the Small Business Administration (SBA), the Office of Management and Budget (OMB), and EPA. During the development of today's proposal, EPA and the Panel were in contact with representatives from the small businesses that would be subject to the provisions in today's proposal. In addition to verbal comments from industry noted by the Panel at meetings and teleconferences, written comments were received from each of the affected industry segments or their representatives. These comments, alternatives suggested by the Panel to mitigate adverse impacts on small businesses, and issues the Panel requested EPA take additional comment on are contained in the report of the Panel and are summarized below. Today's proposal incorporates or requests comment on the alternatives and issues suggested by the Panel.

### Fuel-Related Small Business Issues

Most of the small refiners stated that if they were required to achieve 30 ppm sulfur levels on average with an 80 ppm per-gallon cap without some regulatory relief, they would be forced out of business. Thus, the Panel devoted much attention to regulatory alternatives to address this concern. Most small refiners strongly supported delaying

mandatory compliance for their facilities. On the other hand, most small refiners stated that a phase-in of gasoline sulfur standards would not be helpful because it would be more cost-effective for them to install the maximum technology required for the most stringent sulfur levels that would ultimately be imposed.

The Society of Independent Gasoline Marketers of America (SIGMA) commented that EPA should consider giving relief not only to refiners that meet the SBA definition of small refiner but also to refineries with relatively small production capacity that are owned by large refining companies. This was because a refinery with a small production capacity would operate essentially as an SBA-defined small refiner would. SIGMA also noted that small gasoline marketers would be affected by the closure of any refinery with small production capacity, whether it was owned by a large company or an SBA-defined small refining company.

The Panel recommended that small refiners be given a four to six year period of relief during which less stringent gasoline sulfur requirements would apply. The Panel also advised that EPA specifically request comment on an alternative duration of ten years for the relief period. Small refiners would be assigned interim sulfur standards during this relief period based on their current individual refinery sulfur levels. Following this relief period, small refiners would be required to meet the industry-wide standard, although temporary hardship relief would be available on a case-by-case basis. The additional time provided to small refiners before compliance with the industry-wide standard was required would allow (1) new sulfurreduction technologies to be proven-out

by larger refiners, (2) the costs of advanced technology units to drop as the volume of their sales increases, (3) industry engineering and construction resources to be freed-up, and (4) the acquisition of the necessary capital by small refiners. The provisions that EPA is proposing for small refiners and our requests for specific comments are found in Section IV.C.3.b.above. The Panel concluded that adding gasoline sulfur to the fuel parameters already being sampled and tested by gasoline marketers would likely result in little, if any, additional burden. Therefore, the Panel did not recommend any special provision for gasoline marketers.

### Vehicle-Related Small Business Issues

Independent commercial importers of vehicles (ICIs) suggested that the new emissions standards be phased-in with the phase-in schedule based on the small vehicle manufacturer's annual production volume. Secondly, the ICIs requested that small testing laboratories be permitted to use older technology dynamometers than proposed for use by the Agency. Finally, the ICIs commented that the certification process should be waived for certain foreign vehicles. Small-volume vehicle manufacturers (SVMs) stated that a phase-in of Tier-2 emissions standards is essential. They further stated that SVMs should not be required to comply until the end of the phase-in period, which should not be before model year 2007. The SVMs also stated that a caseby-case hardship relief provision should be provided for their members. SVMs requested that a credit program be established with incentives for larger manufacturers to make credits available to SVMs in meeting their compliance goals.

Based on the above comments, the Panel advised that EPA consider several

According to SBA's regulations (13 CFR 121), businesses with no more than the listed number of employees or dollars in annual receipts are considered "small entities" for purposes of a regulatory flexibility analysis.

alternatives, individually or in combination, for the potential relief that they might provide to small certifiers of vehicles. Our requests for comments on these alternatives are found in Section V.A.8 above.

The Initial Regulatory Flexibility Analysis evaluates the financial impacts of the proposed vehicle standards and fuel controls on small entities. EPA believes that the regulatory alternatives considered in today's document will provide substantial relief to small business from the potential adverse economic impacts of complying with today's proposed rule.

### C. Paperwork Reduction Act

The information collection requirements (ICR) in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq*. The Agency may not conduct or sponsor an information collection, and a person is not required to respond to a request for information unless the information collection request displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

The information collection requirements associated with today's proposed rule belong to two distinct categories: (1) Those that pertain to the proposed amendments to the vehicle certification requirements, and (2) those that pertain to the proposed requirements for the control of gasoline sulfur content. The information collection requirements are contained in two separate ICR documents according to the category to which they belong. 110

The Paperwork Reduction Act stipulates that ICR documents estimate the burden of activities that would be required of regulated parties within a three year time period. Consequently, the ICR documents that accompany today's proposed rule provide burden estimates for the activities that would be required under the first three years of the proposed program.

ICRs Pertaining to the Proposed Amendments to Vehicle Certification Requirements

The information collection burden to vehicle certifiers associated with the proposed amendments to the vehicle certification requirements in today's document pertain to the proposed fleetaverage NO<sub>X</sub> standard and emission credits provisions. These proposed requirements are very similar to those under the voluntary National Low Emission Vehicle (NLEV) program, which includes a fleet-average standard for nonmethane hydrocarbon organic gases (NMOG) and associated emission credits provisions. The hours spent annually by a given vehicle certifier on the information collection activities associated with the proposed recordkeeping and reporting requirements depends upon certifierspecific variables, including: the scope/ variety of their product line as reflected in the number of test groups and strategy used to comply with the proposed fleet-average NO<sub>X</sub> standard, the extent they utilize the proposed emissions credits provisions, and whether they opted into the NLEV program. Vehicle certifiers that use the proposed provisions for early banking of emission credits would be subject to the associated information collection requirements as early as September 1, 2000.<sup>111</sup> All vehicle certifiers would be required to comply with the information collection requirements associated with the amendments to the vehicle certification program beginning September 1, 2003.112 The ICR document for the proposed amendments to the vehicle certification program provides burden estimates for all of the associated information collection requirements. The total information collection burden associated with the proposed amendments to the vehicle certification requirements is estimated at 8,361 hours and \$564,172 annually for the certifiers of light-duty vehicles and light-duty trucks.

ICRs Pertaining to the Proposed Requirements for Gasoline Sulfur Control

The information collection burden to gasoline refiners, importers, marketers, distributors, retailers and wholesale purchaser-consumers (WPCs), and users of research and development (R&D) gasoline pertain to the proposed

gasoline sulfur control requirements. The scope of the recordkeeping and reporting requirements for each regulated party, and therefore the cost to that party, reflects the party's opportunity to create, control, or alter the sulfur content of gasoline. As a result, refiners and importers would have significant requirements, which are necessary both for their own tracking, and that of downstream parties, and for EPA enforcement. Parties downstream from the gasoline production or import point, such as retailers, would have minimal burdens that are primarily associated with the transfer and retention of product transfer documents. Many of the reporting and recordkeeping requirements for refiners and importers regarding the sulfur content of gasoline on which the proposed rule would rely currently exist under EPA's Reformulated Gasoline (RFG) and Anti-Dumping programs. The ICR for the RFG program covered start up costs associated with reporting gasoline sulfur content under the RFG program. Consequently, much of the cost of the information collection requirements under the proposed gasoline sulfur control program has already been accounted for under the RFG program

The information collection requirements under the proposed sulfur control program would evolve over time as the program is phased-in. Beginning July 1, 2000, certain requirements would apply to parties that voluntarily opt to generate credits for early sulfur reduction under the proposed average banking and trading (ABT) provisions. Many of the requirements would not become applicable until the beginning of the sulfur control program on October 1, 2003, when all refiners would be required to meet the proposed standards. The information collection requirements under the proposed program would become stable after January 1, 2008, when the optional small refiner provisions would ex<u>p</u>ire.<sup>113</sup>

The ICR document for the proposed gasoline sulfur control program provides burden estimates for the activities that would be required under the first three years of the sulfur control program, from July 1, 2000 through June 30, 2003. The burden associated with activities that would be required after June 30, 2003 will be estimated in later ICRs. The initial ICR for the gasoline sulfur control program, however, does

<sup>110</sup> The information collection requirements associated with the proposed amendments to the requirements for vehicle certification are contained in the Information Collection Request entitled "Amendments to the Reporting and Recordkeeping Requirements for Motor Vehicle Certification Under the Proposed Tier 2 Rule". The information collection requirements associated with the proposed gasoline sulfur control program are contained in the Information Collection Request entitled "Recordkeeping and Reporting Requirements Regarding the Sulfur Content of Motor Vehicle Gasoline Under the Tier 2 Rule".

<sup>111</sup> These ICRs would become effective on the date that model year 2001 vehicles are introduced into commerce. EPA assumes that September 1, 2000 is the earliest date that model year 2001 vehicles will be marketed.

<sup>&</sup>lt;sup>112</sup> Assuming model year 2004 vehicles are introduced into commerce on this date.

 $<sup>^{113}\,\</sup>mathrm{A}$  refiner could petition EPA for an extension of the small refiner provisions beyond January 1, 2008, based on hardship.

provide a qualitative characterization of all of the required activities and associated burdens for the various regulated parties as they develop, and until they become stable after January 1, 2008.

We estimate that the total burden of the information collection requirements that would be applicable during the first three years of the proposed gasoline sulfur control program would be 42,479 hours and \$2,149,865 annually. The estimated annual burden for the various regulated entities under the initial three year period of the proposed gasoline sulfur control program are as follows:

- -Refiners: 31,231 hours, \$1,879,822
- -Importers: 40 hours, \$2,067
- —Pipelines: 85 hours, \$2,785
- —Terminals: 1,700 hours, \$55,700
- —Truckers: 3,333 hours, \$118,000
- -Retailers/WPCs: 6,087 hours, \$ 91,298
- —R&D Gasoline Users: 3 hours, \$193

### Total Burden of the Proposed ICRs

We estimate that the total burden of the recordkeeping and reporting requirements associated with the proposed vehicle certification and gasoline sulfur control requirements would be at 50,840 hours and \$2,714,037 annually over the first three years that these requirements would be in effect.

### Comments on EPA's Burden Estimates

We request comments on the Agency's need for the information proposed to be collected, the accuracy of our estimates of the associated burdens, and any suggested methods for minimizing the burden, including the use of automated techniques for the collection of information. Comments on the ICR should be sent to: the Office of Policy, Regulatory Information Division, U.S. Environmental Protection Agency (Mail Code 2136), 401 M Street, SW., Washington, DC 20460, marked "Attention: Director of OP;" and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, marked "Attention: Desk Officer for EPA." Include the ICR number in any such correspondence. OMB is required to make a decision concerning the ICR between 30 and 60 days after publication of a proposed rule. Therefore, comments to OMB on the ICR are most useful if received within 30 days of the publication date of today's document. Any comments from OMB and from the public on the information collection requirements in today's proposal will be placed in the docket and addressed by EPA in the final rule.

Copies of the ICR documents can be obtained from Sandy Farmer, Office of Policy, Regulatory Information Division, U.S. Environmental Protection Agency (Mail Code 2137), 401 M Street, SW., Washington, DC 20460, or by calling (202) 260–2740. Insert the ICR title and/or OMB control number in any correspondence. Copies may also be downloaded from the internet at http://www.epa.gov.icr.

### D. Intergovernmental Relations

### 1. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments, and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "federal mandates" that may result in expenditures to state, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more for any single year. Before promulgating a rule, for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative that is not the least costly, most costeffective, or least burdensome alternative if EPA provides an explanation in the final rule of why such an alternative was adopted.

Before we establish any regulatory requirement that may significantly or uniquely affect small governments, including tribal governments, we must develop a small government plan pursuant to section 203 of the UMRA. Such a plan must provide for notifying potentially affected small governments, and enabling officials of affected small governments to have meaningful and timely input in the development of our regulatory proposals with significant federal intergovernmental mandates. The plan must also provide for informing, educating, and advising small governments on compliance with the regulatory requirements.

This proposed rule contains no federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule imposes no enforceable duties on any of these governmental entities. Nothing in the proposed rule would significantly or uniquely affect small governments.

EPA has determined that this rule contains federal mandates that may result in expenditures of more than \$100 million to the private sector in any single year. EPA believes that the proposed program represents the least costly, most cost-effective approach to achieve the air quality goals of the proposed rule. The cost-benefit analysis required by the UMRA is discussed in Section IV.D. above and in the Draft RIA. See the "Administrative Designation and Regulatory Analysis" section in today's preamble (VIII.A.) for further information regarding these analyses.

## 2. Executive Order 12875: Enhancing Intergovernmental Partnerships

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a state, local or Tribal government, unless the federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 12875 requires EPA to provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected state, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of state, local and Tribal governments "to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.

Today's proposed rule would not create a mandate on state, local or Tribal governments. The proposed rule would not impose any enforceable duties on these entities. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

## 3. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian Tribal governments, and that imposes substantial direct compliance

costs on those communities, unless the federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.'

Today's rule does not significantly or uniquely affect the communities of Indian Tribal governments. The proposed motor vehicle emissions, motor vehicle fuel, and other related requirements for private businesses in today's document would have national applicability, and thus would not uniquely affect the communities of Indian Tribal Governments. Further, no circumstances specific to such communities exist that would cause an impact on these communities beyond those discussed in the other sections of today's document. Thus, EPA's conclusions regarding the impacts from the implementation of today's proposed rule discussed in the other sections of today's document are equally applicable to the communities of Indian Tribal governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

### E. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Section 12(d) of Public Law 104-113, directs EPA to use voluntary consensus standards in its regulatory activities unless it would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides

not to use available and applicable voluntary consensus standards.

This proposed rule references technical standards adopted by the Agency through previous rulemakings. No new technical standards are proposed in today's document. The standards referenced in today's proposed rule involve the measurement of gasoline fuel parameters and motor vehicle emissions. The measurement standards for gasoline fuel parameters referenced in today's proposal are all voluntary consensus standards. The motor vehicle emissions measurement standards referenced in today's proposed rule are government-unique standards that were developed by the Agency through previous rulemakings. These standards have served the Agency's emissions control goals well since their implementation and have been well accepted by industry. EPA is not aware of any voluntary consensus standards for the measurement of motor vehicle emissions. Therefore, the Agency proposes to use the existing EPA-developed standards found in 40 CFR part 86 for the measurement of motor vehicle emissions.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

## F. Executive Order 13045: Children's Health Protection

Executive Order (E.O.) 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that (1) is determined to be "economically significant" as defined under E.O. 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, section 5–501 of the Order directs the Agency to evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This proposed rule is subject to the Executive Order because it is an economically significant regulatory action as defined by E.O. 12866 and it concerns in part an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children.

This rulemaking will achieve significant reductions of various emissions from passenger cars and light trucks, primarily  $NO_X$ , but also NMOG and PM. These pollutants raise concerns regarding environmental health or safety risks that EPA has reason to believe may have a disproportionate effect on children, such as impacts from ozone, PM and certain toxic air pollutants. See Section III of this proposal and the RIA for a further discussion of these issues.

The effects of ozone and PM on children's health were addressed in detail in EPA's rulemaking to establish the NAAQS for these pollutants, and EPA is not revisiting those issues here. EPA believes, however, that the emission reductions from the strategies proposed in this rulemaking will further reduce air toxics and the related adverse impacts on children's health. EPA will be addressing the issues raised by air toxics from motor vehicles and their fuels in a separate rulemaking that EPA will initiate in the near future under section 202(l) of the Act. That rulemaking will address the emissions of hazardous air pollutants from vehicles and fuels, and the appropriate level of control of HAPs from these sources.

In this proposal, EPA has evaluated several regulatory strategies for reductions in emissions from passenger cars and light trucks. (See sections IV V, and VI of this proposal as well as the RIA.) For the reasons described there, EPA believes that the strategies proposed are preferable under the Clean Air Act to other potentially effective and reasonably feasible alternatives considered by the Agency, for purposes of reducing emissions from these sources as a way of helping areas achieve and maintain the NAAQS for ozone and PM. Moreover, EPA believes that it has selected for proposal the most stringent and effective control reasonably feasible at this time, in light of the technology and cost requirements of the Act.

## IX. Statutory Provisions and Legal Authority

Statutory authority for the vehicle controls proposed in today's document can be found in sections 202, 206, 207, 208, and 301 of the Clean Air Act (CAA), as amended, 42 U.S.C. sections 7521, 7525, 7541, and 7601.

Statutory authority for the fuel controls proposed in today's document comes from section 211(c) of the CAA, which allows EPA to regulate fuels that either contribute to air pollution which endangers public health or welfare or which impair emission control equipment. Both criteria are satisfied for

the proposed gasoline sulfur controls. Additional support for the procedural and enforcement-related aspects of the fuel's controls in today's proposal, including the proposed record keeping requirements, comes from sections 114(a) and 301(a) of the CAA.

### List of Subjects

### 40 CFR Part 80

Environmental protection, Administrative practice and procedure, Fuel Additives, Gasoline, Imports, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

#### 40 CFR Part 85

Environmental protection, Confidential business information, Imports, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements, Research, Warranties.

### 40 CFR Part 86

Environmental protection, Administrative practice and procedure, Confidential business information, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Dated: May 1, 1999.

### Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, we propose to amend parts 80, 85 and 86 of title 40, of the Code of Federal Regulations as follows:

## PART 80—REGULATION OF FUELS AND FUEL ADDITIVES

1. The authority citation for part 80 continues to read as follows:

**Authority:** Secs. 114, 211, and 301(a) of the Clean Air Act, as amended (42 U.S.C. 7414, 7545 and 7601(a)).

2. Section 80.2 is amended by removing and reserving paragraph (aa) and revising paragraphs (h), (s), (w) and (gg) to read as follows:

### §80.2 Definitions.

\* \* \* \* \*

(h) Refinery means any facility, including but not limited to, a plant, tanker truck, or vessel where gasoline or diesel fuel is produced, including any facility at which blendstocks are combined to produce gasoline or diesel fuel, or at which blendstock is added to gasoline or diesel fuel.

(s) Gasoline blending stock, blendstock, or component means any liquid compound which is blended with other liquid compounds to produce gasoline.

\* \* \* \* \*

(w) Previously certified gasoline means gasoline or RBOB that previously has been included in a batch for purposes of complying with the standards for reformulated gasoline, conventional gasoline or gasoline sulfur, as appropriate.

(aa) [Reserved]

(gg) Batch of gasoline means a quantity of gasoline that is homogeneous with regard to those properties that are specified for conventional or reformulated gasoline.

3. Section 80.46 is amended by revising paragraphs (a) and (h) to read as follows:

### § 80.46 Measurement of reformulated gasoline fuel parameters.

- (a) *Sulfur*. Sulfur content must be determined by using one of the following methods:
- (1) Primary method. American Society for Testing and Materials (ASTM) standard method D–2622–98, entitled "Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry."
- (2) Alternative method. ASTM D-5453-93, entitled "Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor fuels and Oils by Ultraviolet Fluorescence."

(h) Incorporations by reference. ASTM standard methods D-2622-98, D-5453-93, D-3606-92, D-1319-93, D-4815-93, and D-86-90 with the exception of the degrees Fahrenheit figures in Table 9 of D-86-90, are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428. Copies may be inspected at the Air Docket Section (LE-131), room M-1500, U.S. Environmental Protection Agency, Docket No. A-97-03, 401 M Street, SW., Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

4. Subpart H is added to read as follows:

### Subpart H—Gasoline Sulfur

#### **General Information**

Sec

80.180 What are the implementation dates for the gasoline sulfur program?

80.185 [Reserved]

80.190 Am I required to register with EPA under the sulfur program?

### **Gasoline Sulfur Standards**

80.195 What are the gasoline sulfur standards for refiners and importers?

80.200 What gasoline is subject to the sulfur standards?

80.205 How is compliance with the annual average sulfur level determined?

80.210 What sulfur standards apply to gasoline downstream from refineries and importers?

80.215 What requirements apply to oxygenate blenders?

80.220 [Reserved]

### **Small Refiner Provisions**

80.225 What is the definition of a small refiner?

80.230 Who is not eligible for the small refiner provisions?

80.235 How does a refiner obtain approval as a small refiner?

80.240 What are the small refiner gasoline sulfur standards?

80.245 How does small refiner apply for a sulfur baseline?

80.250 How is the small refiner sulfur baseline determined?

80.255 [Reserved]

80.260 What are the procedures and requirements for obtaining a hardship extension?

80.265 How will the EPA approve or disapprove of my hardship extension application?

80.270-80.275 [Reserved]

### Sulfur Averaging, Banking, Trading— General Information

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### Sulfur ABT Program—Baseline

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### Subpart H—Gasoline Sulfur

### **General Information**

## § 80.180 What are the implementation dates for the gasoline sulfur program?

- (a) *July 1, 2000.* Deadline for submittal of sulfur baseline determinations for averaging, banking and trading program per § 80.290.
- (b) *June 1, 2002.* Deadline for small refiner applications per § 80.235.
- (c) *October 1, 2003*. Per-gallon caps apply, per § 80.195 or § 80.240, as applicable.
- (d) January 1, 2004. Refinery and importer average standards apply and corporate pool average gasoline standards apply, per § 80.195. Small refinery average standards apply per § 80.240.
- (e) *February 1, 2004.* Downstream caps apply, per § 80.210.
- (f) January 1, 2005. Corporate pool average standards and per-gallon caps are made more stringent per § 80.195.
- (g) January 1, 2006. Corporate pool average gasoline standards no longer apply. Per-gallon caps are made more stringent per § 80.195.

(h) *June 30, 2007.* Deadline for small refiner hardship extension applications

per § 80.260.

- (i) January 1, 2008. With the exception of gasoline produced by small refiners with approved hardship extensions, every batch of gasoline is subject to the 80 ppm cap. With the exception of small refiners with approved hardship extensions, refinery and importer average gasoline sulfur standards apply, per § 80.195.
- (j) January 1, 2010. Every batch of gasoline is subject to the 80 ppm cap. Refinery and importer average gasoline sulfur standards apply, per § 80.195.

### §80.185 [Reserved]

## § 80.190 Am I required to register with EPA under the sulfur program?

(a) Each refiner and importer must register with EPA according to the procedures specified in this section.

- (b) Refiners and importers subject to the standards in § 80.195 who are registered by EPA under § 80.76(a) are deemed to be registered for purposes of this subpart. Refiners and importers subject to the standards in § 80.195 who are not registered by EPA under § 80.76(a) must provide to EPA the information required by § 80.76 by November 1, 2003 or not later than three months in advance of the first date that such person produces or imports gasoline, whichever is later.
- (c) Refiners and individual refineries that are registered by EPA under § 80.76(a) and have established small refiner individual refinery standards status under § 80.235(f) are deemed to be registered for purposes of this subpart. Refiners having any refinery subject to the standards in § 80.240 who are not registered by EPA under § 80.76(a) must provide to EPA the information required by § 80.76 by June 1, 2002.
- (d) Any refiner or importer who plans to generate credits in any year prior to 2004 must register with us no later than November 1 of the year prior to the first year of credit generation.

### **Gasoline Sulfur Standards**

## § 80.195 What are the gasoline sulfur standards for refiners and importers?

- (a)(1) The gasoline sulfur standards for refiners and importers, excluding small refiners subject to the standards at § 80.240, are shown in Table 1 of this section.
- (2) The averaging period is January 1 through December 31 of each year. For each averaging period, a refiner's or importer's average sulfur level must be no greater than the levels specified in Table 1 of this section, as follows:

TABLE 1.—GASOLINE SULFUR STANDARDS

	For the averaging period beginning  January 1, 2004 January 1, 2005 January 1, 2006+				
Refinery or Importer Average, ppm Corporate Pool Average, ppm Per-Gallon Cap, ppm	120	30 90 180	30 (b) 80		

<sup>&</sup>lt;sup>a</sup>This per-gallon cap standard must be met beginning October 1, 2003.

<sup>b</sup> Not applicable.

- (b) The refinery or importer average gasoline sulfur standard.
- (1) The refinery or importer average gasoline sulfur standard is the

maximum average sulfur level, measured in parts per million (ppm), allowed for the combined reformulated and conventional gasoline produced at a refinery or imported by an importer

during each calendar year starting January 1, 2004.

- (2) The annual average sulfur level is calculated as specified in section § 80.205.
- (3) The refinery or importer average gasoline sulfur standard may be met using credits according to § 80.315, or any other potential sources of credits or allowances, if applicable.
- (c) The corporate pool average gasoline sulfur standard applicable in 2004 and 2005 is the maximum average sulfur level, in ppm, allowed for a refiner's or importer's combined reformulated and conventional gasoline production from all of a refiner's refineries and all gasoline imported by an importer in a calendar year. The corporate pool average is determined by volume-weighting each refinery's and importer's actual annual average sulfur levels by their respective production or import volumes, as specified in \$80 205
- (d) The per-gallon cap standard specified in Table 1 of this section for the averaging period beginning January 1, 2004, must be met beginning October 1, 2003.

### § 80.200 What gasoline is subject to the sulfur standards?

All gasoline is subject to the standards in this subpart, with the following exceptions:

- (a) Gasoline that is used to fuel aircraft, racing vehicles or racing boats that are used only in sanctioned racing events, provided that:
- (1) Product transfer documents associated with such gasoline, and any pump stand from which such gasoline is dispensed, identify the gasoline either as gasoline that is restricted for use in aircraft, or as gasoline that is restricted for use in racing motor vehicles or racing boats that are used only in sanctioned racing events;
- (2) The gasoline is completely segregated from all other gasoline throughout production, distribution and sale to the ultimate consumer; and
- (3) The gasoline is not made available for use as motor vehicle gasoline, or dispensed for use in motor vehicles.
- (b) California gasoline as defined in  $\S 80.81(a)(2)$ .
- (c) Gasoline that is exported for sale outside the U.S.

## § 80.205 How is compliance with the annual average sulfur level determined?

(a) The refinery or importer average gasoline sulfur level is calculated as follows:

$$S_{a} = \frac{\sum_{i=1}^{n} (V_{i} \times S_{i})}{\sum_{i=1}^{n} V_{i}}$$

Where:

- $S_a$  = The refinery or importer annual average sulfur value.
- $V_{\rm i}$  = The volume of gasoline produced or imported in batch i.
- $S_i$  = The sulfur content of batch i as determined in accordance with the requirements of § 80.330.
- n = The number of batches of gasoline produced or imported during the averaging period.
- i = Individual batch of gasoline produced or imported during the averaging period.
- (b) A refiner or importer may include oxygenate added downstream from the refinery or import facility when calculating the sulfur content, provided the following requirements are met:
- (1) For oxygenate added to conventional gasoline, the refiner or importer must comply with the requirements of § 80.101(d)(4)(ii).
- (2) For oxygenate added to RBOB, the refiner or importer must comply with the requirements of § 80.69(a).
- (c) Refiners and importers must exclude from compliance calculations all of the following:
- (1) Gasoline that was not produced at the refinery or was not imported by the importer (or that was imported as Certified Sulfur-FRGAS).
- (2) Blending stocks or gasoline that have been included in another refiner's compliance calculations.
- (3) Gasoline exempted from standards under  $\S$  80.200.
- (d) Compliance deficit. A refinery or importer may exceed the refinery or importer annual average sulfur standard specified in § 80.195 under the following conditions:
- (1) In the calendar year following the year the standard is not met, the refinery or importer achieves compliance with the refinery or importer annual average sulfur standard specified in § 80.195; and
- (2) In the calendar year following the year the standard is not met, and after achieving compliance with the refinery or importer annual average sulfur standard specified in § 80.195, the refinery or importer must have sufficient additional credits and/or actual reduction in sulfur levels to equal the compliance deficit of the previous year.

## § 80.210 What sulfur standards apply to gasoline downstream from refineries and importers?

(a) Definition. S-RGAS means gasoline produced by a domestic refinery that is subject to the standards in § 80.240, and to Certified Sulfur-FRGAS, as defined in § 80.410, except that no batch of gasoline may be classified as S-RGAS if the actual sulfur content is less than the national refinery cap standard specified in § 80.195.

(b) The sulfur cap standard for gasoline at any point in the gasoline distribution system downstream from refineries and import facilities, including gasoline at facilities of distributors, carriers, retailers and wholesale purchaser-consumers, is as follows:

(1) The following standards apply to gasoline except where product transfer documents indicate the presence of any S-RGAS:

During the Period	National Downstream Sulfur Cap Standard (ppm)
February 1, 2004, through January 31, 2005 February 1, 2005, through	≤326
January 31, 2006	≤201
February 1, 2006, and there- after	≤95

(2) For gasoline, including a mixture of gasoline batches from different refineries, where product transfer documents indicate the presence of any S–RGAS, the downstream cap standard for the gasoline is the highest downstream cap standard applicable to any gasoline in the mixture, except that if a test result indicates the sulfur content of the mixture is less than or equal to the applicable national downstream cap standard, the gasoline is subject to the national downstream cap standard.

## § 80.215 What requirements apply to oxygenate blenders?

Oxygenate blenders, as defined by § 80.2(mm), are subject to the requirements of this subpart except for the reporting requirements of § 80.370 and the requirements under § 80.330 to sample and test each batch of gasoline produced.

### §80.220 [Reserved]

### **Small Refiner Provisions**

### § 80.225 What is the definition of a small refiner?

(a) A *small refiner* is defined as any person, as defined by 42 U.S.C. 7602(e), which, as of January 1, 1999:

(1) Produced gasoline at a refinery by processing crude oil through refinery

processing units; and

(2)(i) Employed no more than 1500 people, including subsidiaries, and in the case of a refiner who operates a refinery as a joint venture with other refiners, including the total number of employees of all corporate entities in the venture; or

- (ii) Is a subsidiary, in which case the employees of the parent company and any wholly-owned subsidiaries of the parent company must be included in determining if the 1,500 employee limit is exceeded.
- (b) This definition applies to domestic and foreign refiners.
- (c) If, without merger with or acquisition of another business unit, a company with approved small refiner status exceeds 1500 employees after January 1, 1999, it will be considered a small refiner for the duration of the small refiner program.
- (d) A refiner that was not in operation as of January 1, 1999, that begins operation before January 1, 2001, and meets all other criteria of this subpart, may apply for small refiner status according to § 80.235.

## § 80.230 Who is not eligible for the small refiner provisions?

- (a) The following are not eligible for the small refiner provisions:
- (1) Refineries built or started up after January 1, 1999, unless the criteria of § 80.225(d) are met; or
- (2) Persons that employ more than 1500 people on January 1, 1999, but employ fewer than 1500 people after that date; or

(3) Importers; or

- (4) Refiners employing 1500 or fewer people which were part of a larger corporation as of January 1, 1999 but subsequently were sold to form a new company.
- (b) Disqualification as a small refiner. (1) Refiners who qualify as small under § 80.225, and subsequently employ more than 1500 people as a result of merger with or acquisition of another entity, are disqualified as small refiners and must meet the standards in § 80.195 beginning on January 1 of the first calendar year following such merger or acquisition.
- (2) If a small refiner is no longer eligible for small refiner status or elects to change the status of any refinery operating under a small refiner individual refinery standard to subject the refinery to the standards in § 80.195, the refiner must notify EPA in writing within 20 days of the disqualifying event or, in the case of a voluntary election, no later than November 15

prior to the year that the change will occur. Each refinery of the small refiner no longer eligible for small refiner status must meet the standards in \$80.195 for the next averaging period.

## § 80.235 How does a refiner obtain approval as a small refiner?

- (a) A refiner must apply to EPA for small refiner status by June 1, 2002.
- (b) Applications for small refiner status must be sent to: U.S. EPA—FED, Gasoline Sulfur Small Refiner Status, 2000 Traverwood, Ann Arbor, MI 48105.
- (c) The small refiner status application must contain the following information:
- (1) A listing of the name and address of each location where any employee of the refiner worked on January 1, 1999, the total number of employees at each location, and the type of business activities carried out at each location.
- (2) A letter signed by the president, chief operating or chief executive officer of the company, or his/her designee, stating that the information contained in the application is true to the best of his/her knowledge.
- (3) Name, address, phone number, facsimile number and E-mail address of a corporate contact person.
- (d) For joint ventures, the total employee count includes the combined employee count of all corporate entities in the venture.
- (e) For government-owned refiners, the total employee count includes all government employees.
- (f) Refiners who apply for small refiner status based on the number of employees after January 1, 1999 but before January 1, 2001, as permitted under § 80.225(d), must comply with paragraphs (a) through (c) of this section.
- (g) EPA will notify a refiner of approval or disapproval of small refiner status by letter.
- (1) If approved, EPA will notify the refiner of each refinery's approved baseline, refinery per-gallon cap, and downstream per-gallon cap standard under § 80.210.
- (2) If disapproved, the refiner must comply with the standards in § 80.195.

## § 80.240 What are the small refiner gasoline sulfur standards?

(a) The gasoline sulfur standards for an approved small refiner depend on the refinery baseline sulfur level, and are shown in Table 1 of this section, as follows:

TABLE 1.—GASOLINE SULFUR STAND-ARDS FOR APPROVED SMALL REFIN-ERS

Refinery base- line sulfur level (ppm)	Refinery annual average and per-gallon ("cap") sul- fur standards (ppm) that apply during 2004–2007
0 to 30	Refinery average: 30. Cap: 80.
31 to 80	Refinery average: no requirement.
81 to 200	Cap: 80. Refinery average: baseline level.
	Cap: Factor of 2 above the baseline.
201 and above.	Refinery average: 200 ppm or 50% of baseline, whichever is higher, but in no event greater than 300 ppm.
	Cap: Factor of 1.5 above baseline level.

(b) The average standards specified in Table 1 of this section apply to the combined reformulated and conventional gasoline produced at a refinery.

(c) The refinery average sulfur standards specified in Table 1 of this section must be met on an annual calendar year basis for each refinery owned by a small refiner.

(d) The per-gallon cap standards specified in Table 1 of this section for the averaging period beginning January 1, 2004 must be met beginning October 1, 2003.

(e) Volume limitation. (1) The refinery average standards specified in Table 1 of this section apply to the volume of gasoline produced by a small refiner's refinery up to the lesser of:

(i) 105% of the baseline gasoline volume; or

(ii) The volume of gasoline produced at that refinery during the average period by processing crude oil.

(2) If a refiner exceeds the volume limitation in paragraph (e)(1) of this section during the calendar year, the annual average sulfur standard is calculated as follows:

$$S_{sr} = \frac{\left(V_b \times S_b\right) + \left(30 \times V_a \times V_b\right)}{V_a}$$

Where:

 $S_{\rm sr}$  = Small refiner annual average sulfur standard.

 $V_b$  = Applicable volume under paragraph (e)(1) of this section.

 $V_a$  = Averaging period gasoline volume.  $S_b$  = Small refiner sulfur baseline.

(3) The applicable volume from paragraph (e)(1) of this section excludes volumes of gasoline blending stocks used in the small refinery's gasoline

production that were received from external sources, unless such blending stocks are substantially transformed through the refinery's processing operations and have not been included in any other refiner's or importer's compliance determination.

(4) The applicable per-gallon cap standards in Table 1 of this section apply to all gasoline produced by small

refiners.

(f) Withdrawal of small refiner status. Refiners that receive notification from EPA under § 80.235(f) of their qualification as small refiners will have that status withdrawn if EPA finds that the refiner provided false or inaccurate information on its application for small refiner status. Such refiners will be subject to the standards in § 80.195 beginning on January 1, 2004.

### § 80.245 How does a small refiner apply for a sulfur baseline?

- (a) A refiner seeking small refiner status must establish an individual sulfur baseline for every refinery covered by the small refiner status application by June 1, 2002
- (1) If a sulfur baseline was submitted for the refinery under § 80.290, the refiner does not need to resubmit that information.
- (2) If no sulfur baseline was previously submitted, the refiner must submit a sulfur baseline for every refinery according to § 80.250.
- (b) The sulfur baselines must be submitted to the address specified in § 80.235(b).

## § 80.250 How is the small refiner sulfur baseline determined?

(a) The small refiner sulfur baseline is determined as follows:

$$S_b = \frac{\sum_{i=1}^{n} (V_i \times S_i)}{\sum_{i=1}^{n} V_i}$$

### Where:

 $S_b = Sulfur$  baseline value.

 $V_i$  = Volume of gasoline batch i.

 $S_i$  = Sulfur content of batch i.

- n = Total number of batches of conventional gasoline produced from January 1, 1997 through December 31, 1998.
- i = Individual batch of conventional gasoline produced from January 1, 1997 through December 31, 1998.
- (b) Foreign small refiners must also comply with the baseline establishment requirements in § 80.410(b).
- (c) An approved small refiner may not aggregate the gasoline volumes and sulfur levels of its refineries for

compliance with the applicable standards specified in § 80.240.

- (d) If at any time a small refinery baseline is determined to be incorrect, the corrected baseline applies ab initio and the annual average standards and cap standards are deemed to be those applicable under the corrected information.
- (e) If a small refiner does not have the data specified in paragraph (a) of this section to generate a sulfur baseline, or if any refineries owned by that refiner were not operating in 1997–1998, EPA will assign each refinery a baseline average sulfur level of 150 ppm sulfur and a baseline CG volume equivalent to the annual gasoline volume capability of the refinery at the time it applies for small refiner status.

### §80.255 [Reserved].

## § 80.260 What are the procedures and requirements for obtaining a hardship extension?

- (a) An approved small refiner may apply to EPA for a hardship extension of the small refiner standards for calendar years 2008 and 2009. The application must be submitted no later than June 30, 2007 to U.S. EPA–FED, Small Refiner Hardship Extension, 2000 Traverwood, Ann Arbor, MI 48105.
- (b) The application must provide a detailed discussion regarding the inability of the refinery to produce gasoline meeting the requirements of § 80.195. Such an application must include, at a minimum, the following information:
- (1) A detailed analysis of the reasons the refinery is unable to produce gasoline meeting the requirements of § 80.195 in 2008, including costs, specification of equipment still needed, potential equipment suppliers, and efforts already completed to obtain the necessary equipment;
- (2) If unavailability of equipment is part of the reason for the inability to comply, a discussion of other options considered, and the reasons these other options are not feasible;
- (3) If relevant, a demonstration that a needed or lower cost technology is immediately unavailable, but will be available in the near future, and full information regarding when and from what sources it will be available;
- (4) Schematic drawings of the refinery configuration as of January 1, 1997 and as of the date of the hardship extension application, and any planned future additions or changes;
- (5) If relevant, a demonstration that a temporary unavailability exists of engineering or construction resources necessary for design or installation of the needed equipment;

- (6) If sources of crude oil lower in sulfur than what the refiner is currently using are available, full information regarding the availability of these different crude sources, the sulfur content of those crude sources, the cost of the different crude sources over the past five years, and an estimate of gasoline sulfur levels achievable by your refinery if the lower sulfur crude sources were used;
- (7) A discussion of any sulfur reductions that can be achieved from current levels:
- (8) The date the refiner anticipates compliance with the standards in § 80.195 can be achieved at its refinery;
- (9) An analysis of the economic impact of compliance on the refiner's business (including financial statements from the last 5 years, or for any time period up to 10 years, at EPA's request); and
- (10) Any other information regarding other strategies considered, including strategies, or components of strategies, that do not involve installation of equipment, and why meeting the standards in § 80.195 beginning in 2008 is infeasible.
- (c) The hardship extension application must contain a letter signed by the president, chief operating or chief executive officer, of the company, or his/her designee, stating that the information contained in the application is true to the best of his/her knowledge.

## § 80.265 How will the EPA approve or disapprove of my hardship extension application?

- (a) EPA will evaluate each application for hardship extension on a case-by-case basis. An extension will be granted for a refinery if the small refiner who owns the refinery adequately demonstrates that severe economic hardship would result if compliance with the standards in § 80.195 is required in 2008 and/or 2009.
- (b) EPA may request more information, if necessary, for evaluation of the application. If requested information is not submitted within the time specified in EPA's request, or any extensions granted, the application may be denied.
- (c) EPA will notify the refiner of approval or disapproval of hardship extension by letter.
- (1) If approved, EPA will also notify the refiner of the date that full compliance with the standards specified at § 80.195 must be achieved or what interim sulfur levels or schedules apply, if any.

(2) If disapproved, beginning January 1, 2008, the refinery is subject to the requirements in § 80.195.

#### §80.270-80.275 [Reserved]

### Sulfur Averaging, Banking, Trading-General Information

## § 80.280 What is the sulfur Averaging, Banking and Trading (ABT) program?

(a) The sulfur averaging, banking and trading program is a voluntary program

- which allows eligible, participating refiners and importers to generate, bank, trade and use credits.
- (b) Beginning in 2000, refiners and importers may generate credits by producing or importing gasoline with sulfur levels below the applicable baseline as calculated under § 80.295.
- (c) Beginning in 2004, sulfur credits may be:
- (1) Used by the refiner or importer who generated the credits;

- (2) Banked for later use or transfer; or
- (3) Traded or sold to another refiner or importer.
- (d) This subpart contains specific requirements for the following:
- (1) Using, generating, selling and trading credits; and
- (2) The duration of the ABT program.
  (e) The gasoline sulfur ABT program is summarized in Table 1 of this section as follows:

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Table 1. Sulfur ABT Program Summary

2000	2000 - 2003	2004	2005	2006	2007+
	Early Credit Generation for				
1	Gasoline with ≤150 ppm Sulfur				
Application		Credit Gen	eration for	≤30 ppm Sul	fur
for Credit	Banking and Trading of Credits	Banking & Trading of Credits			dits
Program		Corporate Average			
Baseline		Standard	ds Apply		
due by		Compliance with 30 ppm Average Standard			e Standard
July 1		at the Refinery and Importer Level			Level
		Phase-in of Downstream Cap Standards			tandards

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## § 80.285 Who may participate in the sulfur ABT program?

- (a) Any refiner or importer of gasoline, may participate in the program, except that participation by small refiners is limited under paragraph (d) of this section.
- (b) Refiners and importers who choose to generate credits in the ABT program must establish a sulfur baseline under § 80.290.
- (c) Oxygenate blenders may not participate in the program.
- (d) Small refiners with any refinery subject to the standards specified in § 80.240:
- (1) May not use sulfur credits to meet the average standard applicable to the refinery.
- (2) May generate early credits under § 80.305 and bank and trade such sulfur credits throughout the duration of the sulfur ABT program.

### Sulfur ABT Program—Baseline

## § 80.290 How do I apply for a sulfur baseline?

- (a) Each refiner or importer who wishes to generate ABT program credits during 2000–2003 must submit a sulfur baseline notification to EPA by July 1, 2000.
- (b) The sulfur baseline notification must be sent to: U.S. EPA–FED, ABT Sulfur Baseline, 2000 Traverwood, Ann Arbor, MI 48105.
- (c) The sulfur baseline notification must include the following information:
- (1) A listing of the names and addresses of all refineries and/or import facilities owned by the corporation;
- (2) The conventional gasoline sulfur baseline value, calculated as specified in § 80.295(a), for each refinery and import facility of the corporation.
- (3) The conventional gasoline baseline volume, calculated as specified in

- § 80.295(c), for each refinery and import facility of the corporation.
- (4) A letter signed by the president, chief operating or chief executive officer, of the company, or his/her delegate, stating that the information contained in the sulfur baseline determination is true to the best of his/her knowledge.
- (5) Name, address, phone number, facsimile number and E-mail address of a corporate contact person.
- (d)(1) A refiner or importer may generate credits as specified in § 80.305, beginning in calendar year 2000, based on the sulfur baseline submitted to EPA according to paragraph (c) of this section.
- (2) If at any time the baseline submitted in accordance with the requirements of this section is determined to be incorrect, the corrected baseline applies. Credits

generated, banked, used or traded will be adjusted to reflect the correction.

## § 80.295 How is a refinery or importer sulfur baseline determined?

(a) A refinery's or importer's conventional gasoline sulfur baseline is calculated using the following equation:

$$S_{BCG} = \frac{\sum_{i=1}^{n} (V_i \times S_i)}{\sum_{i=1}^{n} V_i}$$

Where:

 $S_{BCG}$  = Conventional gasoline sulfur baseline value.

V<sub>i</sub> = Volume of conventional gasoline batch i.

 $S_i$  = Sulfur content of conventional gasoline batch i.

n = Total number of batches of conventional gasoline produced or imported during January 1, 1997 through December 31, 1998.

i = Individual batch of conventional gasoline produced or imported during January 1, 1997 through December 31, 1998.

(b) The individual sulfur baseline for summer reformulated gasoline is 150 ppm.

(c) The individual sulfur baseline for winter reformulated gasoline is equivalent to the conventional gasoline sulfur baseline calculated under paragraph (a) of this section.

(d) The baseline volumes are as follows:

(1) The conventional gasoline baseline volume is one half of the total 1997 and 1998 volume of conventional gasoline produced or imported.

(2) There is no baseline volume for either summer or winter RFG produced or imported.

(e) Any refiner or importer who, under § 80.65 or § 80.101(d)(4), included oxygenate blended downstream in conventional gasoline compliance calculations for 1997–1998 must include this oxygenate in the baseline calculations for sulfur content and volume under paragraphs (a) and (d) of this section.

(f) The baseline calculations for sulfur content and volume under paragraphs (a) and (d) of this section for non-oxygenated blendstock, such as natural gasoline or butane, that is blended into gasoline must be calculated using the sulfur content and volume of the blendstock only.

## § 80.300 What if I did not produce or import gasoline during 1997 or 1998?

A refiner or importer who did not produce or import gasoline during 1997

or 1998 is assigned a baseline sulfur level of 150 ppm for conventional gasoline and RFG (winter and summer).

## **Sulfur ABT Program—Credit Generation**

## § 80.305 How are credits generated during the time period 2000 through 2003?

(a) *General*. (1) Sulfur credits may be generated annually during calendar years 2000–2003.

(2) Credits must be calculated separately for Conventional gasoline and RFG. Credits must be calculated by multiplying the volume of gasoline for which credits are generated under paragraphs (b) and (c) of this section by the amount of sulfur reduction in ppm below the refiner's or importer's applicable sulfur baseline. The refiner or importer may include any oxygenates included in its RFG or Conventional gasoline volume under §§ 80.65 and 80.101(d)(4), respectively, for the purpose of generating credits.

(3) A refiner's or importer's total credit generation is the sum of the separate credit calculations for Conventional gasoline and RFG.

(4) Credits under this program are in units of "ppm-gallons".

(5) Credits must be identified by the year of creation, the year of transfer (if any), and the year of use (as specified in § 80.315). Records relating to credit generation, use, and transfer, including the applicable years, must be maintained pursuant to § 80.365.

(b) Calculation of credits for conventional gasoline. (1) Refiners and importers may generate credits for conventional gasoline produced or imported during an averaging period only if the annual average sulfur level for the conventional gasoline produced during the averaging period is less than 150 ppm.

(2) Refiners and importers whose conventional gasoline volume for the averaging period is less than or equal to 105% of its baseline volume for conventional gasoline, must calculate credits as follows:

$$CR_{CG} = (V_{CG}) \times S_{BCG} - S_{ACG}$$
) Where:

CR<sub>CG</sub> = Credits generated for conventional gasoline.

 $V_{\rm CG}$  = Volume of conventional gasoline produced or imported during the averaging period.

$$\begin{split} S_{BCG} &= Sulfur \ baseline \ value \ for \\ conventional \ gasoline \ or \ 150, \\ whichever \ is \ greater \ . \end{split}$$

S<sub>ACG</sub> = Annual average sulfur level for conventional gasoline produced or imported during the averaging period. (3) Refiners and importers whose conventional gasoline volume for the averaging period is greater than 105% of the baseline volume for conventional gasoline, must calculate credits as follows:

 $\begin{array}{l} CR_{\rm CG} = (V_{\rm BCG} \times 1.05) \times (S_{\rm BCG} - S_{\rm ACG}) \; + \\ (V_{\rm CG} - (1.05 \times V_{\rm BCG})) \times (150 - S_{\rm ACG}) \end{array}$ 

Where:

CR<sub>CG</sub> = Credits generated for conventional gasoline.

 $V_{\mathrm{BCG}}$  = Baseline volume of conventional gasoline.

 $S_{\mathrm{BCG}} = \mathrm{Sulfur}$  baseline value for conventional gasoline or 150, whichever is greater.

 $S_{
m ACG} =$  Annual average sulfur level for conventional gasoline produced or imported during the averaging period.

V<sub>CG</sub> = Volume of conventional gasoline produced or imported during the averaging period.

(c) Calculation of credits for RFG. (1) Refiners and importers may generate credits for summer RFG produced or imported during an averaging period only if the average sulfur level for the summer RFG produced or imported during the averaging period is less than 150 ppm. Summer RFG credits are calculated as follows:

 $CR_{SRFG} = (V_{SRFG}) \times (150 - S_{SRFG})$ Where:

 $CR_{SRFG}$  = Credits generated for summer reformulated gasoline.

V<sub>SRFG</sub> = Volume of summer RFG produced or imported during the averaging period.

 $S_{SRFG} = Average \ sulfur \ level \ for \ summer \\ RFG \ produced \ or \ imported \ during \\ the \ averaging \ period.$ 

(2) Refiners and importers may generate credits for winter RFG produced or imported during an averaging period only if the average sulfur level for the winter RFG produced or imported during the averaging period is less than 150 ppm. Winter RFG credits calculated as follows:

 $CR_{WRFG} = (V_{WRFG}) \times (S_{BCG} - S_{WRFG})$ Where:

 $CR_{WRFG}$  = Credits generated for winter reformulated gasoline.

$$\begin{split} V_{\mathrm{WRFG}} = & \text{Volume of winter RFG} \\ & \text{produced or imported during the} \\ & \text{averaging period.} \end{split}$$

 $S_{\rm BCG} = Sulfur \ baseline \ value \ for \\ conventional \ gasoline \ or \ 150, \\ whichever \ is \ greater.$ 

S<sub>WRFG</sub> = Average sulfur level for winter RFG produced or imported during the averaging period.

## § 80.310 How are credits generated beginning in 2004?

(a) A refiner, for any refinery owned by it, or an importer may generate credits for annual average sulfur reductions if the annual average sulfur level for the combined RFG and conventional gasoline produced by any refinery owned by the refiner or imported by the importer for the averaging period is less than 30 ppm.

(b) Credits calculated as follows:

 $CR_A = (V_A) \times (30 - S_A)$ 

Where:

CR<sub>A</sub> = Credits generated for the averaging period.

V<sub>A</sub> = Total annual combined volume of RFG and conventional gasoline produced in a refinery or imported during the averaging period.

- S<sub>A</sub> = Annual average sulfur level of RFG and conventional gasoline produced in a refinery or imported during the averaging period.
- (c) Credits must be identified by the year of creation, the year of transfer (if any), and the year of use (as specified in § 80.315). Records relating to credit generation, use, and transfer, including the applicable years, must be maintained pursuant to § 80.365.

### **Sulfur ABT Program-Credit Use**

### §80.315 How are credits used?

- (a) Credits may be used, beginning with the 2004 averaging period, to meet the applicable annual average sulfur standard of 30 ppm, provided that:
- (1) Sulfur credits used were generated pursuant to the requirements of this subpart; and
- (2) The requirements of paragraphs (b) and (e) of this section are met.
- (b) Credits may not be used to meet the applicable corporate pool average under § 80.195.
- (c) *Credit transfers.* (1) Credits obtained from other persons may be used to meet the annual averaged 30 ppm standard specified in § 80.195 if all the following conditions are met:
- (i) The credits are generated and reported according to the requirements of this subpart.
- (ii) The credits are used in compliance with the limitations regarding the appropriate periods for credit use in this subpart.
- (iii) Any credit transfer takes place no later than the last day of February following the calendar year averaging period when the credits are used.
- (iv) Only the refiner or importer who generates the credits transfers them, and only a refiner or importer who uses the credits to achieve its compliance with the averaged standards obtains them from the transferor refiner or importer.

- (v) The credit transferor must apply any credits necessary to meet the transferor's applicable average standard, including credits generated during 2000, 2001, 2002 and 2003, before transferring credits to any other refiner or importer. No credits may be transferred that would result in the transferor having a negative credit balance.
- (vi) The transferor must supply to the transferee records indicating the year(s) the credits were generated.
- (2) In the case of credits that have been calculated or created improperly, or are otherwise determined to be invalid in violation of the requirements of this subpart, the following provisions apply:
- (i) Invalid credits cannot be used to achieve compliance with the transferee's averaging standard, regardless of the transferee's good faith belief that the credits were valid.

(ii) The refiner or importer who used the credits, and any transferor of the credits, must adjust its sulfur calculations to reflect the proper credits.

- (iii) Any properly created credits existing in the transferor's credit balance after correcting the credit balance, and after the transferor applies credits as needed to meet the average standard at the end of the compliance year, must first be applied to correct the invalid transfers before the transferor trades or banks the credits.
- (d) *Limitations on credit use.* (1) Credits generated prior to 2004 must be used or transferred no later than 2007.
- (2) Credits generated in 2004 or later must be used or transferred within five years of generation.
- (3) Credits transferred must be used by the transferee within five years of transfer, or no more than ten years of the year of generation, whichever is less.
- (4) A refiner possessing credits must use all credits prior to falling into compliance deficit, as defined under § 80.205(d) (2).
- (e) If the recordkeeping requirements of § 80.365(d) are not met, credits used under this subpart are invalid.

## § 80.320 What are the reporting requirements for the sulfur ABT program?

- (a) A refiner or importer who generates, uses, or transfers credits under the sulfur ABT program must file an annual report with EPA which must be submitted with the refiner's or importer's annual compliance report under § 80.370.
- (b) The report must include the following information:
- (1) For credits generated in 2000, 2001, 2002 and 2003, the applicable Conventional gasoline sulfur content baseline, in ppm, and Conventional gasoline baseline;

- (2) The actual annual average sulfur content, in ppm, before the application of credits, separately for Conventional gasoline and separately, the average sulfur content, in ppm, for winter RFG and for summer RFG;
- (3) For refiners, the annual volume of conventional gasoline produced, and for importers, the annual volume of Non-Certified S-FRGAS imported, in gallons;
- (4) The number of credits used in ppm-gallons, in the averaging period;
- (5) The number of credits banked, credits transferred and credits acquired, in ppm-gallons;
- (6) The identity of the refiners and importers involved in these transactions, including their registration numbers, under § 80.190, and the number of credits in ppm-gallons in each transaction; and
- (7) The number of credits, if any, for which the refiner is deficient, as defined under § 80.205 (d), and the use of credits in the following year to cure the deficiency under § 80.205(d)(2).

### §80.325 [Reserved].

### Sampling, Testing and Retention Requirements for Refiners and Importers

## § 80.330 What are the sampling and testing requirements for refiners and importers?

- (a) Sample and test each batch of gasoline. (1) Refiners and importers of gasoline must collect a representative sample from each batch of gasoline produced or imported and test each sample to determine its sulfur content for compliance with requirements under this subpart prior to the gasoline leaving the refinery or import facility, using the sampling and testing methods provided in this section.
- (2) The requirements of this section apply beginning October 1, 2003, or January 1 of the first year of credit generation for refiners and importers generating early credits under § 80.305.
- (b) Sampling methods. Refiners and importers must sample each batch of gasoline by using one of the following methods:
- (1) Manual sampling of tanks and pipelines must be performed according to the applicable procedures specified in one of the two following methods:
- (i) American Society for Testing and Materials (ASTM) method D 4057–95, entitled "Standard Practice for Manual Sampling of Petroleum and Petroleum Products."
- (ii) Samples collected under the applicable procedures in ASTM D 5842–95, entitled "Standard Practice for Sampling and Handling of Fuels for Volatility Measurement," may be used

for measuring sulfur content if you assure that there is no contamination present that could affect the sulfur test result.

- (2) Automatic sampling of petroleum products in pipelines must be performed according to the applicable procedures specified in ASTM method D 4177–95, entitled "Standard Practice for Automatic Sampling of Petroleum and Petroleum Products."
- (c) Test method for measuring the sulfur content of gasoline. Refiners and importers must use the method provided in § 80.46(a) to measure the sulfur content of gasoline they produce or import.
- (d) Test method for sulfur in Butane. The sulfur content of butane must be determined by ASTM D-5623-94, entitled "Standard Test Method for Sulfur Compounds in Light Petroleum Liquids by Gas Chromatography and Sulfur Selective Detection."
- (e) Incorporations by reference. ASTM standard practices D 4057-95, D 4177-95 and D 5842-95, and ASTM standard method D 5623-94 are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428. Copies may be inspected at the Air Docket Section (LE-131), room M-1500, U.S. Environmental Protection Agency, Docket No. A-97-03, 401 M Street, SW., Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

## § 80.335 What gasoline sample retention requirements apply to refiners and importers?

- (a) For each batch of gasoline produced or imported, refiners and importers must:
- (1) Retain a representative sample of at least 330 ml, collected from the batch and keep the sample for a period not less than 30 days from the date the batch was collected.
- (2) Comply with the gasoline sample handling and storage procedures found in the sampling procedures specified in § 80.330 for each sample retained.
- (3) Provide the sample retained under paragraph (a) of this section to the Administrator's authorized representative upon request by EPA, and if requested by EPA, ship the sample to EPA within two working days by an overnight shipping service or comparable means, following the

procedures specified by EPA when the request is made.

(4) Include with each annual report filed under § 80.370, the following statement, signed and dated by the same person who signs the annual report:

I certify that I have made inquiries that are sufficient to give me knowledge of the procedures to collect and store gasoline samples, and I further certify that the procedures meet the requirements of the ASTM procedures required under § 80.330.

(b) The requirements of this section apply beginning October 1, 2003, or January 1 of the first year of credit generation for refiners and importers generating early credits under § 80.305.

# § 80.340 What alternative standards, sampling and testing requirements apply to refiners producing gasoline by blending blendstocks into previously certified gasoline (PCG)?

- (a) Any refiner who produces gasoline by blending blendstock into PCG must meet the requirement of § 80.330 to sample and test every batch of gasoline as follows:
- (1)(i) Sample and test to determine the volume and sulfur content of the PCG prior to blendstock blending;
- (ii) Sample and test to determine the volume and sulfur content of the gasoline subsequent to blendstock blending:
- (iii) Calculate the volume and sulfur content of the blendstock, which is a batch for purposes of compliance calculations and reporting, by subtracting the volume and sulfur content of the PCG from the volume and sulfur content of the gasoline subsequent to blendstock blending.
- (2) In the alternative, and provided every batch of blendstock used at a refinery during an averaging period has a sulfur content that is equal to or less than the applicable per-gallon cap standard under § 80.195, a refiner may sample and test each batch of blendstock when received at the refinery to determine the volume and sulfur content, and treat each blendstock receipt as a separate batch for purposes of compliance calculations for the annual average sulfur standard and for reporting.
- (b) Refiners that blend only butane into PCG may meet the sampling and testing requirements by using sulfur test results of the butane supplier, provided that the following requirements are also met:
- (1) The sulfur content of the butane received from the butane supplier must not exceed 30 ppm on a per-gallon basis.
- (2) The butane supplier must demonstrate that the sulfur content of

each load of butane supplied does not exceed the per-gallon sulfur standard of 30 ppm through test results of samples of the butane contained in the storage tank from which the butane blender is supplied.

- (i) Testing for the sulfur content of the butane by the supplier must be subsequent to each time butane is supplied to the supplier's storage tank, or the testing must be immediately before transfer of butane to the butane blender.
- (ii) The testing must be performed by the method specified in § 80.330(d).
- (iii) The butane blender must obtain a copy of the butane supplier's test results, at the time of each transfer of butane to the butane blender, that reflect the sulfur content of each load of butane supplied to the butane blender.
- (3) The sulfur content and volume of each batch of gasoline produced must be that of the butane the refiner blends into gasoline for purposes of calculating compliance with the standards in § 80.195.
- (4) The refiner must conduct a quality assurance program of sampling and testing for each butane supplier that demonstrates the butane sulfur content does not exceed 30 ppm. The frequency of butane sampling and testing, for each butane supplier, must be one sample for every 500,000 gallons of butane received, or one sample every 3 months, whichever results in more frequent sampling.
- (5) If any of the requirements of this section are not met, in whole or in part, for any butane blended into gasoline, that butane is deemed in violation of the gasoline sulfur standards in § 80.195.

### § 80.345 [Reserved]

## § 80.350 What alternative sulfur standards, sampling and testing requirements apply to importers who transport gasoline by truck?

Importers who import gasoline into the United States by truck, as an alternative to the requirements to sample and test every batch of gasoline under § 80.330(a), and the annual sulfur average and per-gallon cap standards otherwise applicable to importers under § 80.195, may instead comply with the following requirements:

(a) *Per-gallon standard*. The imported gasoline must meet a sulfur standard of 30 ppm on a per-gallon basis.

(b) Terminal testing. The terminal operator must demonstrate the gasoline does not exceed 30 ppm sulfur on a pergallon basis, through testing of the gasoline contained in the storage tank from which the trucks used to transport gasoline into the United States are loaded.

- (1) This sampling and testing must be performed after each receipt of gasoline into the storage tank, or immediately before each transfer of gasoline to the importer's truck.
- (2) The sampling and testing must be performed using the methods specified in § 80.330.
- (3) At the time of each transfer of gasoline to the importer's truck, the importer must obtain a copy of the terminal test result that indicates the sulfur content of each truck load of gasoline that is imported into the United States
- (c) Quality assurance program. The importer must conduct a quality assurance program, as specified in this paragraph, for each truck loading terminal.
- (1) Quality assurance samples must be obtained from the truck-loading terminal and tested by the importer, or by an independent laboratory, and the terminal operator must not know in advance when samples are to be collected.
- (2) The sampling and testing must be performed using the methods specified in § 80.330.
- (3) The quality assurance test results for sulfur must be within 12 ppm of the terminal's test results.
- (4) The frequency of the quality assurance sampling and testing must be at least one sample for each fifty of an importer's trucks that are loaded at a terminal, or one sample per month, whichever is more frequent.
- (d) Instead of conducting the quality assurance program specified in paragraph (c) of this section an importer may meet the quality assurance program requirement if the sampling and testing requirements of paragraph (b) of this section are conducted by an independent laboratory that meets the requirements in § 80.65(f)(2)(iii).
- (e) The importer must treat each truck load of imported gasoline as a separate batch for purposes of assigning batch numbers and maintaining records under § 80.365, and reporting under § 80.370.
- (f) EPA inspectors of auditors, and auditors conducting attest engagements under § 80.415, must be given full and immediate access to the truck-loading terminal and any laboratory at which samples of gasoline collected at the terminal are analyzed, and must be allowed to conduct inspections, review records, collect gasoline samples, and perform audits. These inspections or audits may be either announced or unannounced.
- (g) This section does not apply to Certified Sulfur-FRGAS.
- (h) If any of the requirements of this section are not met, all gasoline

imported by the truck importer during the time any requirements are not met is deemed in violation of the gasoline sulfur average and per-gallon cap standards in § 80.195. In addition, the truck importer may not in the future use the sampling and testing provisions in this section in lieu of the provisions in § 80.330.

### §80.355 [Reserved]

## Recordkeeping and Reporting Requirements

## § 80.360 What are the product transfer document requirements?

- (a) On each occasion that any person transfers custody of or title to S–RGAS, as defined in § 80.210, other than when S–RGAS is sold or dispensed for use in motor vehicles at a retail outlet or wholesale purchaser-consumer facility, the product transfer documents must include a statement identifying the gasoline as S–RGAS and the applicable downstream cap under § 80.210(b).
- (b) Except for transfers to truck carriers, retailers and wholesale purchaser-consumers, product codes may be used to convey the information required by this section if such codes are clearly understood by each transferee.

### §80.365 What records must be kept?

- (a) Records that must be kept. Beginning January 1, 2004, any person who sells, offers for sale, dispenses, distributes, supplies, offers for supply, stores, or transports gasoline, must keep the following records:
- (1) The product transfer documents required under §§ 80.106, 80.77 and 80.360;
- (2) For any sampling and testing for sulfur content conducted:
- (i) The location, date, time and storage tank or truck identification for each sample collected;
- (ii) The name and title of the person who collected the sample and the person who performed the testing;
- (iii) The results of the tests for sulfur content and the test volume; and
- (3) Reasonable business records documenting the actions you took to stop the sale or distribution of any gasoline found not to be in compliance with the sulfur standards specified in this subpart, and the actions you took to identify the cause of any noncompliance and prevent future instances of noncompliance.
- (b) Additional records that refiners and importers must keep. Beginning October 1, 2003, or January 1 of the first year of early credit generation for refiners and importers generating credits under § 80.305, refiners and importers

- must keep records that include the following information:
- (1) The volume of each batch of gasoline produced or imported;
- (2) For credit generation, the information required by paragraph (a)(2) of this section as well as the information required under § 80.305(a)(5) and § 80.310(c);
- (3) The batch number assigned to each batch of gasoline under § 80.65(d)(3); however, if composite samples that represent multiple batches of conventional gasoline for anti-dumping purposes are used, a separate batch number must be assigned to each batch for purposes of this subpart;

(4) The date of production or importation of each batch of gasoline produced or imported;

- (5) The calculations and records used in making the calculations to determine compliance with the applicable sulfur standard on average, including compliance with the debit provision of this subpart and records regarding the generation, use, transfer, and banking of credits under §§ 80.195, 80.305, 80.310 and 80.315; and
- (6) A copy of all reports and other documents submitted to the EPA pursuant to the requirements of this subpart.
- (c) Additional records importers must keep. Importers must maintain documentation which verifies the source of each batch of certified Sulfur-FRGAS and non-certified Sulfur-FRGAS imported
- (d) Length of time records must be kept. The records required in paragraphs (a), (b) and (c) of this section must be maintained for five years from the date they were created, except for the following:
- (1) For any person who generates credits, and/or uses the credits so generated, the records required by paragraphs (a), (b) and (c) of this section must be retained for five years from the date the credits were used, and in no case must the records be retained for more than ten years from the year they were generated.
- (2) In the case of credits that were transferred between two parties, both parties must retain records of those credits for ten years from the date the credits were generated.
- (e) Make records available to EPA. The records required in paragraphs (a), (b) and (c) of this section must be made available to the Administrator or the Administrator's authorized representative upon request.

## § 80.370 What are the annual reporting requirements?

Beginning with the 2004 averaging period, or the first year of credit

generation for refiners and importers generating early credits under § 80.305, and continuing for each averaging period thereafter, refiners and importers must submit to the Administrator a report that contains the information required in this section and such other information as EPA may require. A refiner's annual reports for 2004 and 2005 must include the refiner's RFG and conventional gasoline production for all refineries during the averaging period. Beginning in 2006 and thereafter, a refiner must submit a separate annual report for each refinery that produced gasoline during the averaging period. An importer must submit a report for all of the gasoline imported during the averaging period no later than the last day of February following the previous year's averaging period.

(a) Information required in a refiner's report. For refiners, the annual sulfur averaging report must include the

following information:

(1) The EPA refiner and refinery facility registration numbers;

- (2) The total gallons of gasoline (winter reformulated, summer reformulated, and conventional) produced at the refinery or aggregation of refineries:
- (3) The annual average sulfur content of the gasoline (winter reformulated, summer reformulated, and conventional) produced at the refinery, or aggregation of refineries, in parts per million:

(4) For each batch of gasoline produced during the averaging period:

- (i) The batch number assigned under § 80.65(d)(3); however, if composite samples that represent multiple batches of conventional gasoline are tested for conventional gasoline, a separate batch number must be assigned to each batch, using the batch numbering procedures specified in § 80.65(d)(3);
  - (ii) The date the batch was produced;

(iii) The volume of the batch;

- (iv) The sulfur content of the batch as determined under § 80.330;
- (v) The information on individual batches submitted to EPA under § 80.75(a)(2) and 80.105(a)(5) satisfies the requirements of this paragraph (a)(4) unless compositing of samples is used for anti-dumping rule batch reporting under § 80.105(a)(5);
- (5) A refiner's annual report for 2004 and 2005 must include the refiner's winter reformulated RFG, summer RFG, and conventional gasoline for all refineries during the averaging period;
- (6) Beginning in 2006 and thereafter, a refiner must submit a separate annual report for each of its refineries that produced gasoline during the averaging period.

- (b) Information required in an importer's report. An importer must submit a report for all the gasoline it imported during the averaging period. The report must include the following information:
- (1) The EPA importer registration number;
- (2) The total gallons of gasoline (reformulated and conventional) imported during the averaging period, excluding certified Sulfur-FRGAS;
- (3) The annual average sulfur content of the gasoline (reformulated and conventional) imported during the averaging period, excluding certified Sulfur-FRGAS, in parts per million;
- (4) For gasoline imported during the averaging period from any small foreign refiner who has an EPA approved individual baseline under the small refiner provisions at § 80.410, include the following information:

(i) The EPA refiner and refinery registration numbers of each such small foreign refiner and refinery facility; and

- (ii) The total gallons of certified Sulfur-FRGAS and non-certified Sulfur-FRGAS imported from each such small foreign refiner;
- (5) The batch information required in paragraph (a)(4) of this section.
- (c) Sulfur credit program activity. Refiners and importers who generate, bank, transfer, or use sulfur credits must submit to EPA an annual report in accordance with the provisions of § 80.320.
- (d) The report must state the debit for the current year, as applicable, and credits applied to the previous compliance year's debit, as applicable.
- (e) Report submission. Each annual report required under this section must be
- (1) Signed and certified as meeting all of the applicable requirements of this subpart H by the owner or a responsible corporate officer of the refiner or importer; and
- (2) Submitted to EPA no later than the last day of February for the prior calendar year averaging period.
- (f) Attest reports. Attest reports for refiner and importer attest engagements must be submitted to the Administrator by May 30 of each year under § 80.415.

### **Exemptions**

## § 80.375 What requirements apply to California gasoline?

- (a) *Definition*. For purposes of this subpart, *California gasoline* is defined under § 80.81(a)(2).
- (b) California gasoline exemptions. California gasoline is exempt from all requirements of this subpart with the exception of the segregation

requirement described in paragraph (c) of this section and the product transfer document requirements described in paragraph (d) of this section.

(c) Segregation requirement.
California gasoline produced at a refinery located outside of the state of California must be kept segregated from all gasoline that is not California gasoline at all points in the distribution system.

(d) *Product transfer documents.* For California gasoline produced at a refinery located outside the state of California, the transferors and transferees must comply with the product transfer document requirements in § 80.81(g).

(e) Use of California test methods and off site sampling procedures. Any refiner of gasoline produced in California or importer of gasoline imported into California whose gasoline is used outside of California may:

(1) Use the sampling and testing methods approved in Title 13 of the California Code of Regulations, as permitted under § 80.81(h)(1) as an alternative to the sampling and testing methods required by § 80.330; and

(2) Determine the sulfur content of gasoline at off site tankage as permitted in § 80.81(h)(2).

# § 80.380 What are the requirements for obtaining an exemption for gasoline used for research, development or testing purposes?

(a) *R&D* application. Any person may request an exemption from the provisions of this subpart for gasoline used for research, development or testing ("R&D") purposes by submitting an application that includes all the information listed in paragraph (c) of this section to:

Director (6406J), Fuels and Energy Division, U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460; and Director (2242A), Air Enforcement Division, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

(b) *Criteria for an R&D exemption.* For an R&D exemption to be granted, the proposed test program must:

(1) Have a purpose that constitutes an appropriate basis for exemption;

(2) Necessitate the granting of an exemption;

(3) Be reasonable in scope; and(4) Have a degree of control consistent

with the purpose of the program and EPA's monitoring requirements.

(c) Information required to be submitted. To demonstrate each of the four elements in paragraphs (b)(1) through (4) of this section, the

application required under paragraph (a) of this section must include the following information:

(1) A concise statement of the purpose of the program demonstrating that the program has an appropriate R&D purpose.

- (2) An explanation of why the stated purpose of the program cannot be achieved in a practicable manner without performing one or more of the prohibited acts under § 80.385.
- (3) To demonstrate the reasonableness of the scope of the program:
- (i) An estimate of the program's duration;
- (ii) An estimate of the maximum number of vehicles or engines involved in the program;

(iii) The time or mileage duration of the program;

(iv) The range of sulfur content of the gasoline expected to be used in the program, in ppm; and

(v) The quantity of gasoline which exceeds the applicable sulfur standard that is expected to be used in the

(4) With regard to control, a demonstration that the program affords EPA a monitoring capability, including at a minimum:

(i) The technical nature of the program;

(ii) The site(s) of the program (including street address, city, county, State, and zip code);

(iii) The manner in which information on vehicles and engines used in the program will be recorded and made available to the Administrator;

(iv) The manner in which results of the program will be recorded and made available to the Administrator;

- (v) The manner in which information on the gasoline used in the program (including quantity, sulfur content, name, address, telephone number and contact person of the supplier, and the date received from the supplier), will be recorded and made available to the Administrator;
- (vi) The manner in which distribution pumps will be labeled to insure proper use of the gasoline;

(vii) The name, address, telephone number and title of the person(s) in the organization requesting an exemption from whom further information on the application may be obtained; and

(viii) The name, address, telephone number and title of the person(s) in the organization requesting an exemption who is responsible for recording and making available the information specified in paragraphs (b)(4)(iii), (iv) and (v) of this section, and the location in which such information will be maintained.

(d) Additional requirements. (1) The product transfer documents associated with R&D gasoline must identify the gasoline as such, and must state that the gasoline is to be used only for research, development, or testing purposes.

(2) The R&D gasoline must be kept segregated from non-exempt gasoline at all points in distribution of the gasoline.

- (3) The R&D gasoline must not be sold, distributed, offered for sale or distribution, dispensed, supplied, offered for supply, transported to or from, or stored by a gasoline retail outlet, or by a wholesale purchaser-consumer facility, unless the wholesale purchaser-consumer facility is associated with the R&D program that uses the gasoline.
- (e) Memorandum of exemption. The Administrator will grant an R&D exemption upon a demonstration that the requirements of this section have been met. The R&D exemption will be granted in the form of a memorandum of exemption signed by the applicant and the Administrator (or delegate), which will include such terms and conditions as the Administrator determines necessary to monitor the exemption and to carry out the purposes of this section. Any violation of such a term or condition of the exemption or any requirement under this section will cause the exemption to be void ab initio.

### **Violation Provisions**

## § 80.385 What acts are prohibited under the gasoline sulfur program?

No person may:

- (a) Produce or import gasoline that does not comply with the applicable sulfur average standards at § 80.195 or § 80.240.
- (b) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store or transport gasoline that does not comply with the applicable sulfur cap standards at § 80.195, § 80.210 or § 80.240.
- (c) Cause another person to commit an act in violation of paragraph (b) of this section.
- (d) Cause gasoline that does not comply with an applicable refiner/importer or downstream cap standard under § 80.195, § 80.210 or § 80.240 to be in the gasoline distribution system.

# § 80.390 What evidence may be used to determine compliance with the prohibitions and requirements of this subpart and liability for violations of this subpart?

(a) Compliance with the sulfur standards of this subpart must be determined based on the sulfur level of the gasoline, measured using the methodologies specified in § 80.330. Any evidence or information, including

the exclusive use of such evidence or information, may be used to establish the sulfur level of gasoline if the evidence or information is relevant to whether the sulfur level of gasoline would have been in compliance with the standards if the appropriate sampling and testing methodology had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in § 80.330, business records, and commercial documents.

(b) Determination of compliance with the requirements of this subpart other than the sulfur standards, and determination of liability for any violation of this subpart, are based on probative evidence or information obtained from any source or location. Such evidence may include, but is not limited to, business records and commercial documents.

## § 80.395 Who is liable for violations under the gasoline sulfur program?

- (a) Persons liable for violations of prohibited acts. (1) Any refiner or importer who violates § 80.385(a) is liable for the violation.
- (2) Any refiner, importer, distributor, reseller, carrier, retailer or wholesale purchaser-consumer who owned, leased, operated, controlled or supervised a facility where a violation of § 80.385(b) occurred, is deemed in violation of § 80.385(b).
- (3) Any refiner, importer, distributor, reseller, retailer, or wholesale purchaser-consumer who produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation or storage of gasoline that is the subject of a violation of § 80.385(b), is deemed in violation of § 80.385(c).
- (4) Any refiner or importer whose corporate, trade, or brand name, or whose marketing subsidiary's corporate, trade, or brand name appeared at a facility where a violation of § 80.385(b) occurred, is deemed in violation of § 80.385(b).
- (5) Any carrier who dispensed, supplied, stored, or transported gasoline which is the subject of a violation of § 80.385(b), is deemed in violation of § 80.385(c) provided that EPA demonstrates, by reasonably specific showing by direct or circumstantial evidence, that any such carrier caused the violation.
- (6) Any refiner, importer, distributor, reseller, or carrier who owned, leased, operated, controlled or supervised a facility from which gasoline that does

not comply with an applicable refiner/ importer or downstream sulfur cap standard at § 80.195, § 80.210 or § 80.240 was released into the distribution system, is deemed in violation of §80.385(d).

(7) Any person who caused another party to violate § 80.385(a), is liable for causing a violation of § 80.385(a).

(b) Persons liable for failure to meet other requirements of this subpart. (1) Any person who failed to meet a requirement of this subpart not addressed in paragraph (a) of this section is liable for a violation of that requirement.

(2) Any person who caused another person to fail to meet a requirement of this subpart not addressed in paragraph (a) of this section is liable for causing a violation of that requirement.

### § 80.400 What defenses apply to persons deemed liable for a violation of a prohibited

(a) Any person deemed liable for a violation of a prohibition under § 80.395(a), will not be deemed in violation if the person demonstrates:

(1) That the violation was not caused by the person or the person's employee

or agent; and

- (2) That the person conducted a quality assurance sampling and testing program, as described in paragraph (d) of this section. A carrier may rely on the quality assurance program carried out by another party, including the party who owns the gasoline in question, provided that the quality assurance program is carried out properly. Retailers and wholesale purchaserconsumers are not required to conduct quality assurance programs.
- (b) In the case of a violation found at a facility operating under the corporate, trade or brand name of a refiner or importer, or a refiner's or importer's marketing subsidiary, the refiner or importer must show, in addition to the defense elements required by paragraph (a) of this section, that the violation was caused by:

(1) An act in violation of law (other than the Clean Air Act or this Part 80), or an act of sabotage or vandalism;

- (2) The action of any refiner, importer, retailer, distributor, reseller, carrier, retailer or wholesale purchaserconsumer in violation of a contractual agreement between the branded refiner or importer and the person designed to prevent such action, and despite periodic sampling and testing by the branded refiner or importer to ensure compliance with such contractual obligation; or
- (3) The action of any carrier or other distributor not subject to a contract with

the refiner or importer, but engaged for transportation of gasoline, despite specifications or inspections of procedures and equipment which are reasonably calculated to prevent such action.

(c) Under paragraph (a) of this section, for any person to show that the violation was not caused by it, or under paragraph (b) of this section, to show that the violation was caused by any of the specified actions, the person must demonstrate by reasonably specific showing, by direct or circumstantial evidence, that the violation was caused or must have been caused by another person and that the person asserting the defense did not contribute to that other person's causation.

(d) Quality assurance program. To demonstrate an acceptable quality assurance program under paragraph (a)(2) of this section, a person must present evidence of the following:

(1) A periodic sampling and testing program to ensure the gasoline the person sold, dispensed, supplied, stored, or transported, meets the applicable sulfur standard;

(2) On each occasion when gasoline is found not in compliance with the

applicable sulfur standard:

(i) The person immediately ceases selling, offering for sale, dispensing, supplying, offering for supply, storing or transporting the non-complying product: and

(ii) The person promptly remedies the violation and the factors that caused the violation (for example, by removing the non-complying product from the distribution system until the applicable standard is achieved and taking steps to prevent future violations of a similar nature from occurring); and

(3) Any carrier who transports gasoline in a tank truck, the quality assurance program required under this paragraph (d) of this section is not required to include periodic sampling and testing of gasoline in the tank truck, but instead of such sampling and testing, the carrier must present evidence of an oversight program relating to the transport or storage of gasoline by tank truck, such as appropriate guidance to drivers regarding compliance with the applicable sulfur standard and product transfer document requirements, and the periodic review of records received in the ordinary course of business concerning gasoline quality and delivery.

### § 80.405 What Penalties Am I Subject To?

(a) Any person liable for a violation under § 80.395, is subject to a civil penalty of not more than \$27,500 for

every day of each such violation and the amount of economic benefit or savings resulting from each violation.

(b) Any person liable under § 80.395(a) for a violation of the applicable sulfur average standard or causing another party to violate that standard during any averaging period, is subject to a separate day of violation for each and every day in the averaging period. Any person liable under § 80.395(b) for a failure to fulfill any credit creation or transfer requirement, is subject to a separate day of violation for each and every day in the averaging period.

(c)(1) Any person liable under § 80.395(a) for causing gasoline that does not comply with an applicable refiner/importer or downstream sulfur cap standard to be in the gasoline distribution system in violation of § 80.385(d), is subject to a separate day of violation for each and every day that the non-complying gasoline remains any place in the gasoline distribution

(2) For purposes of paragraph (c) of this section, the length of time the gasoline in question remained in the gasoline distribution system is deemed to be twenty-five days, unless a person subject to liability or EPA demonstrates by reasonably specific showings, by direct or circumstantial evidence, that the non-complying gasoline remained in the gasoline distribution system for fewer than or more than twenty-five

(d) Any person liable under § 80.395(b) for failure to meet, or causing a failure to meet, a requirement of this subpart is liable for a separate day of violation for each and every day such requirement remains unfulfilled.

### **Provisions for Foreign Refiners With Individual Sulfur Baselines**

### § 80.410 What are the additional requirements for gasoline produced at foreign refineries having individual small refiner sulfur baselines?

(a) Definitions. (1) A foreign refinery is a refinery that is located outside the United States, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (collectively referred to in this section as "the United States").

(2) A foreign refiner is a person who meets the definition of refiner under § 80.2(i) for foreign refinery.

(3) A small foreign refiner is a refiner that meets the definition of a small refiner under § 80.225.

(4) "Sulfur-FRGAS" means gasoline produced at a foreign refinery that has been assigned an individual refinery

sulfur baseline and that is imported into the United States.

- (5) "Non-Sulfur-FRGAS" means gasoline that is produced at a foreign refinery that has not been assigned an individual refinery sulfur baseline, gasoline produced at a foreign refinery with an individual refinery sulfur baseline that is not imported into the United States, and gasoline produced at a foreign refinery with an individual sulfur baseline during a year when the foreign refiner has opted to not participate in the Sulfur-FRGAS program under paragraph (c)(3) of this section.
- (6) "Certified Sulfur-FRGAS" means Sulfur-FRGAS the foreign refiner intends to include in the foreign refinery's sulfur compliance calculations under § 80.205, and does include in these compliance calculations when reported to EPA.

(7) "Non-Certified Sulfur-FRGAS" means Sulfur-FRGAS that is not Certified Sulfur-FRGAS.

- (b) Baseline establishment. Any foreign refiner that meets the definition of small under § 80.225, may submit to a petition to the Administrator for an individual refinery sulfur baseline, under § 80.235 by June 1, 2002.
- (1) The baseline for a foreign refinery must reflect only the volume and properties of gasoline produced in 1997 and 1998 that was imported into the United States.
- (2) In making determinations for foreign refinery baselines EPA will consider all information supplied by a foreign refiner, and in addition may rely on any and all appropriate assumptions necessary to make such a determination.
- (3) Where a foreign refiner submits a petition that is incomplete or inadequate to establish an accurate baseline, and the refiner fails to cure this defect after a request for more information, then EPA will not assign an individual refinery sulfur baseline.
- (c) General requirements for foreign refiners with individual refinery sulfur baselines. A foreign refiner of a refinery that has been assigned an individual sulfur baseline under paragraph (b) of this section must designate all gasoline produced at the foreign refinery that is exported to the United States as either Certified Sulfur-FRGAS or as Non-Certified Sulfur-FRGAS, except as provided in paragraph (c)(3) of this section.
- (1) In the case of Certified Sulfur-FRGAS, the foreign refiner must meet all requirements that apply to refiners under this subpart.
- (2) In the case of Non-Certified Sulfur-FRGAS, the foreign refiner must meet all the following requirements:

- (i) The designation requirements in this section.
- (ii) The recordkeeping requirements in §§ 80.360 and 80.365.
- (iii) The reporting requirements in § 80.370 and this section.
- (iv) The product transfer document requirements in this section.
- (v) The prohibitions in this section and § 80.385.
- (vi) The independent audit requirements in § 80.415 and paragraph (h) of this section.
- (3)(i) Any foreign refiner that has been assigned an individual sulfur baseline for a foreign refinery under paragraph (b) of this section may elect to classify no gasoline imported into the United States as Sulfur-FRGAS, provided the foreign refiner notifies EPA of the election no later than November 1 of the prior calendar year.
- (ii) An election under paragraph (c)(3)(i) of this section must:
- (A) Be for an entire calendar year averaging period and apply to all gasoline produced during the calendar year at the foreign refinery that is used in the United States; and
- (B) Remain in effect for each succeeding calendar year averaging period, unless and until the foreign refiner notifies EPA of a termination of the election. The change in election takes effect at the beginning of the next calendar year.
- (d) Designation, product transfer documents, and foreign refiner certification. (1) Any foreign refiner of a foreign refinery that has been assigned an individual sulfur baseline must designate each batch of Sulfur-FRGAS as such at the time the gasoline is produced, unless the refiner has elected to classify no gasoline exported to the United States as Sulfur-FRGAS under paragraph (c)(3)(i) of this section.
- (2) On each occasion when any person transfers custody or title to any Sulfur-FRGAS prior to its being imported into the United States, they must include the following information as part of the product transfer document information in this section:
- (i) Identification of the gasoline as Certified Sulfur-FRGAS or as Non-Certified Sulfur-FRGAS; and
- (ii) The name and EPA refinery registration number of the refinery where the Sulfur-FRGAS was produced.
- (3) On each occasion when Sulfur-FRGAS is loaded onto a vessel or other transportation mode for transport to the United States, the foreign refiner must prepare a certification for each batch of the Sulfur-FRGAS that meets the following requirements:
- (i) The certification must include the report of the independent third party

- under paragraph (f) of this section, and the following additional information:
- (A) The name and EPA registration number of the refinery that produced the Sulfur-FRGAS;
- (B) The identification of the gasoline as Certified Sulfur-FRGAS or Non-Certified Sulfur-FRGAS, and for Certified Sulfur-FRGAS the information required by § 80.360;
- (C) The volume of Sulfur-FRGAS being transported, in gallons;
- (D) A declaration that the Sulfur-FRGAS is being included in the compliance baseline calculations under § 80.250 for the refinery that produced the Sulfur-FRGAS; and
- (E) In the case of Certified Sulfur-FRGAS:
- (1) The sulfur content as determined under paragraph (f) of this section; and
- (2) A declaration that the Sulfur-FRGAS is being included in the compliance calculations under § 80.205 for the refinery that produced the Sulfur-FRGAS.
- (ii) The certification must be made part of the product transfer documents for the Sulfur-FRGAS.
- (e) Transfers of Sulfur-FRGAS to non-United States markets. The foreign refiner is responsible to ensure that all gasoline classified as Sulfur-FRGAS is imported into the United States. A foreign refiner may remove the Sulfur-FRGAS classification, and the gasoline need not be imported into the United States, but only if:
  - (1)(i) The foreign refiner excludes:
- (A) The volume of gasoline from the refinery's compliance baseline calculations under § 80.250; and
- (B) In the case of Certified Sulfur-FRGAS, the volume and sulfur content of the gasoline from the compliance calculations under § 80.205;
- (ii) The exclusions under paragraph (e)(1)(i) of this section must be on the basis of the parameter and volumes determined under paragraph (f) of this section; and
- (2) The foreign refiner obtains sufficient evidence in the form of documentation that the gasoline was not imported into the United States.
- (f) Load port independent sampling, testing and refinery identification. (1) On each occasion Sulfur-FRGAS is loaded onto a vessel for transport to the United States a foreign refiner must have an independent third party:
- (i) Inspect the vessel prior to loading and determine the volume of any tank bottoms:
- (ii) Determine the volume of Sulfur-FRGAS loaded onto the vessel (exclusive of any tank bottoms present before vessel loading);

(iii) Obtain the EPA-assigned registration number of the foreign

(iv) Determine the name and country of registration of the vessel used to transport the Sulfur-FRGAS to the United States; and

(v) Determine the date and time the vessel departs the port serving the

foreign refinery.

(2) On each occasion Certified Sulfur-FRGAS is loaded onto a vessel for transport to the United States a foreign refiner must have an independent third party

(i) Collect a representative sample of the Certified Sulfur-FRGAS from each vessel compartment subsequent to loading on the vessel and prior to departure of the vessel from the port serving the foreign refinery;

(ii) Prepare a volume-weighted vessel composite sample from the compartment samples, and determine the value for sulfur using the methodology specified in § 80.330 by:

(A) The third party analyzing the

sample; or

(B) The third party observing the foreign refiner analyze the sample;

- (iii) Review original documents that reflect movement and storage of the certified Sulfur-FRGAS from the refinery to the load port, and from this review determine:
- (A) The refinery at which the Sulfur-FRGAS was produced; and
- (B) That the Sulfur-FRGAS remained segregated from:
- (1) Non-Sulfur-FRGAS and Non-Certified Sulfur-FRGAS; and
- (2) Other Certified Sulfur-FRGAS produced at a different refinery.

(3) The independent third party must submit a report:

- (i) To the foreign refiner containing the information required under paragraphs (f)(1) and (2) of this section, to accompany the product transfer documents for the vessel; and
- (ii) To the Administrator containing the information required under paragraphs (f)(1) and (2) of this section, within thirty days following the date of the independent third party's inspection. This report must include a description of the method used to determine the identity of the refinery at which the gasoline was produced, assurance that the gasoline remained segregated as specified in paragraph (n)(1) of this section, and a description of the gasoline's movement and storage between production at the source refinery and vessel loading.
- (4) The independent third party must: (i) Be approved in advance by EPA, based on a demonstration of ability to perform the procedures required in this paragraph (f);

(ii) Be independent under the criteria specified in § 80.65(f)(2)(iii); and

- (iii) Sign a commitment that contains the provisions specified in paragraph (i) of this section with regard to activities, facilities and documents relevant to compliance with the requirements of this paragraph (f).
- (g) Comparison of load port and port of entry testing. (1)(i) Any foreign refiner and any United States importer of Certified Sulfur-FRGAS must compare the results from the load port testing under paragraph (f) of this section, with the port of entry testing as reported under paragraph (o) of this section, for the volume of gasoline and the sulfur value; except that
- (ii) Where a vessel transporting Certified Sulfur-FRGAS off loads this gasoline at more than one United States port of entry, and the conditions of paragraph (g)(2)(i) of this section are met at the first United States port of entry, the requirements of paragraph (g)(2) of this section do not apply at subsequent ports of entry if the United States importer obtains a certification from the vessel owner, that meets the requirements of paragraph(s) of this section, that the vessel has not loaded any gasoline or blendstock between the first United States port of entry and the subsequent port of entry.

(2)(i) The requirements of this paragraph (g)(2) apply if:

- (A) The temperature-corrected volumes determined at the port of entry and at the load port differ by more than one percent; or
- (B) The sulfur value determined at the port of entry is higher than the sulfur value determined at the load port, and the amount of this difference is greater than the reproducibility amount specified for the port of entry test result by the American Society of Testing and Materials (ASTM).
- (ii) The United States importer and the foreign refiner must treat the gasoline as Non-Certified Sulfur-FRGAS, and the foreign refiner must:
- (A) Exclude the gasoline volume and properties from its gasoline sulfur compliance calculations under § 80.205; and
- (B) Include the gasoline volume in its compliance baseline calculation under § 80.250.
- (h) Attest requirements. The following additional procedures must be carried out by any foreign refiner of Sulfur-FRGAS as part of the attest engagement for each foreign refinery under § 80.415:
- (1) The inventory reconciliation analysis under § 80.128(b) and the tender analysis under § 80.128(c) must include Non-Sulfur-FRGAS in addition

to the gasoline types listed in § 80.128(b) and (c).

- (2) Obtain separate listings of all tenders of Certified Sulfur-FRGAS, and of Non-Certified Sulfur-FRGAS. Agree the total volume of tenders from the listings to the gasoline inventory reconciliation analysis in § 80.128(b), and to the volumes determined by the third party under paragraph (f)(1) of this
- (3) For each tender under paragraph (h)(2) of this section where the gasoline is loaded onto a marine vessel, report as a finding the name and country of registration of each vessel, and the volumes of Sulfur-FRGAS loaded onto each vessel.
- (4) Select a sample from the list of vessels identified in paragraph (h)(3) of this section used to transport Certified Sulfur-FRGAS, in accordance with the guidelines in § 80.127, and for each vessel selected perform the following:
- (i) Obtain the report of the independent third party, under paragraph (f) of this section, and of the United States importer under paragraph (o) of this section.
- (A) Agree the information in these reports with regard to vessel identification, gasoline volumes and test results.
- (B) Identify, and report as a finding, each occasion the load port and port of entry parameter and volume results differ by more than the amounts allowed in paragraph (g) of this section, and determine whether the foreign refiner adjusted its refinery calculations as required in paragraph (g) of this section
- (ii) Obtain the documents used by the independent third party to determine transportation and storage of the Certified Sulfur-FRGAS from the refinery to the load port, under paragraph (f) of this section. Obtain tank activity records for any storage tank where the Certified Sulfur-FRGAS is stored, and pipeline activity records for any pipeline used to transport the Certified Sulfur-FRGAS, prior to being loaded onto the vessel. Use these records to determine whether the Certified Sulfur-FRGAS was produced at the refinery that is the subject of the attest engagement, and whether the Certified Sulfur-FRGAS was mixed with any Non-Certified Sulfur-FRGAS, Non-Sulfur-FRGAS, or any Certified Sulfur-FRGAS produced at a different refinery.
- (5) Select a sample from the list of vessels identified in paragraph (h)(3) of this section used to transport certified and Non-Certified Sulfur-FRGAS, in accordance with the guidelines in § 80.127, and for each vessel selected perform the following:

- (i) Obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure of the vessel, and the port of entry and date of arrival of the vessel.
- (ii) Agree the vessel's departure and arrival locations and dates from the independent third party and United States importer reports to the information contained in the commercial document.

(6) Obtain separate listings of all tenders of Non-Sulfur-FRGAS, and

perform the following:

- (i) Agree the total volume of tenders from the listings to the gasoline inventory reconciliation analysis in § 80.128(b).
- (ii) Obtain a separate listing of the tenders under this paragraph (h)(6) where the gasoline is loaded onto a marine vessel. Select a sample from this listing in accordance with the guidelines in § 80.127, and obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure and the ports and dates where the gasoline was off loaded for the selected vessels. Determine and report as a finding the country where the gasoline was off loaded for each vessel selected.
- (7) In order to complete the requirements of this paragraph (h) an auditor must:
- (i) Be independent of the foreign refiner;
- (ii) Be licensed as a Certified Public Accountant in the United States and a citizen of the United States, or be approved in advance by EPA based on a demonstration of ability to perform the procedures required in § 80.125 through 130 and this paragraph (h); and

(iii) Sign a commitment that contains the provisions specified in paragraph (i) of this section with regard to activities and documents relevant to compliance with the requirements of § 80.125 through 80.130 and this paragraph (h).

- (i) Foreign refiner commitments. Any foreign refiner must commit to and comply with the provisions contained in this paragraph (i) as a condition to being assigned an individual refinery sulfur baseline.
- (1) Any United States Environmental Protection Agency inspector or auditor must be given full, complete and immediate access to conduct inspections and audits of the foreign
- (i) Inspections and audits may be either announced in advance by EPA, or unannounced.
- (ii) Access must be provided to any location where:

- (A) Gasoline is produced;
- (B) Documents related to refinery operations are kept;
- (C) Gasoline or blendstock samples are tested or stored; and
- (D) Sulfur-FRGAS is stored or transported between the foreign refinery and the United States, including storage tanks, vessels and pipelines.

(iii) Inspections and audits may be by EPA employees or contractors to EPA.

- (iv) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.
- (v) Inspections and audits by EPA may include review and copying of any documents related to:
- (A) Refinery baseline establishment, including the volume and sulfur content, and transfers of title or custody, of any gasoline or blendstocks, whether Sulfur-FRGAS or Non-Sulfur-FRGAS, produced at the foreign refinery during the period January 1, 1997 through the date of the refinery baseline petition or through the date of the inspection or audit if a baseline petition has not been approved, and any work papers related to refinery baseline establishment;
- (B) The volume and sulfur content of Sulfur-FRGAS;
- (C) The proper classification of gasoline as being Sulfur-FRGAS or as not being Sulfur-FRGAS, or as Certified Sulfur-FRGAS or as Non-Certified Sulfur-FRGAS;
- (D) Transfers of title or custody to Sulfur-FRGAS:
- (E) Sampling and testing of Sulfur-FRGAS;
- (F) Worked performed and reports prepared by independent third parties and by independent auditors under the requirements of this section and § 80.415, including work papers; and
- (G) Reports prepared for submission to EPA, and any work papers related to such reports.
- (vi) Inspections and audits by EPA may include taking samples of gasoline or blendstock, and interviewing employees.
- (vii) Any employee of the foreign refiner must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(viii) English language translations of any documents must be provided to an EPA inspector or auditor, on request, within 10 working days.

(ix) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(2) An agent for service of process located in the District of Columbia must be named, and service on this agent

- constitutes service on the foreign refiner or any employee of the foreign refiner for any action by EPA or otherwise by the United States related to the requirements of this subpart.
- (3) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations promulgated thereunder are governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.
- (4) United States substantive and procedural laws apply to any civil or criminal enforcement action against the foreign refiner or any employee of the foreign refiner related to the provisions of this section.
- (5) Submitting a petition for an individual refinery sulfur baseline, producing and exporting gasoline under an individual refinery sulfur baseline, and all other actions to comply with the requirements of this subpart relating to the establishment and use of an individual refinery sulfur baseline constitute actions or activities that satisfy the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign refiner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign refiner under this subpart, including conduct that violates 18 U.S.C. 1001 and Clean Air Act section 113(c)(2).
- (6) The foreign refiner, or its agents or employees, must not detain or impose civil or criminal remedies against EPA inspectors or auditors, whether EPA employees or EPA contractors, for actions performed within the scope of EPA employment related to the provisions of this section.
- (7) The commitment required by this paragraph (i) must be signed by the owner or president of the foreign refiner business.
- (8) In any case where Sulfur-FRGAS produced at a foreign refinery is stored or transported by another company between the refinery and the vessel that transports the Sulfur-FRGAS to the United States, the foreign refiner must obtain from each such other company a commitment that meets the requirements specified in paragraphs (i)(1) through (7) of this section, and these commitments must be included in the foreign refiner's baseline petition.
- (j) Sovereign immunity. By submitting a petition for an individual foreign refinery baseline under this section, or by producing and exporting gasoline to the United States under an individual refinery sulfur baseline under this section, the foreign refiner, its agents

and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign refiner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign refiner under this subpart, including conduct that violates 18 U.S.C. 1001 and Clean Air Act section 113(c)(2).

- (k) Bond posting. Any foreign refiner must meet the requirements of this paragraph (k) as a condition to being assigned an individual refinery sulfur baseline.
- (1) The foreign refiner must post a bond of the amount calculated using the following equation:

Bond =  $G \times \$0.01$ 

Where:

Bond = Amount of the bond in U. S. dollars.

- G = The largest volume of gasoline produced at the foreign refinery and exported to the United States, in gallons, during a single calendar year among the most recent of the following calendar years, up to a maximum of five calendar years: the calendar year immediately preceding the date the baseline petition is submitted, the calendar year the baseline petition is submitted, and each succeeding calendar year.
  - (2) Bonds must be posted by:

(i) Paying the amount of the bond to the Treasurer of the United States;

- (ii) Obtaining a bond in the proper amount from a third party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign refiner, provided EPA agrees in advance as to the third party and the nature of the surety agreement; or
- (iii) An alternative commitment that results in assets of an appropriate liquidity and value being readily available to the United States, provided EPA agrees in advance as to the alternative commitment.
- (3) If the bond amount for a foreign refinery increases the foreign refiner must increase the bond to cover the shortfall within 90 days of the date the bond amount changes. If the bond amount decreases, the foreign refiner may reduce the amount of the bond beginning 90 days after the date the bond amount changes.
- (4) Bonds posted under this paragraph (k) must be used to satisfy any judicial

judgment that results from an administrative or judicial enforcement action for conduct in violation of this subpart, including where such conduct violates 18 U.S.C. 1001 and Clean Air Act section 113(c)(2).

(5) On any occasion a foreign refiner bond is used to satisfy any judgment, the foreign refiner must increase the bond to cover the amount used within 90 days of the date the bond is used.

(l) [Reserved]

(m) English language reports. Any report or other document submitted to EPA by an foreign refiner must be in English language, or must include an English language translation.

(n) Prohibitions. (1) No person may combine Certified Sulfur-FRGAS with any Non-Certified Sulfur-FRGAS or Non-Sulfur-FRGAS, and no person may combine Certified Sulfur-FRGAS with any Certified Sulfur-FRGAS produced at a different refinery, except as provided in paragraph (e) of this section.

(2) No foreign refiner or other person may cause another person to commit an action prohibited in paragraph (n)(1) of this section, or that otherwise violates the requirements of this section.

- (o) *United States importer* requirements. Any United States importer must meet the following requirements:
- (1) Each batch of imported gasoline must be classified by the importer as being Sulfur-FRGAS or as Non-Sulfur-FRGAS, and each batch classified as Sulfur-FRGAS must be further classified as Certified Sulfur-FRGAS or as Non-certified Sulfur-FRGAS.
- (2) Gasoline must be classified as Certified Sulfur-FRGAS or as Non-Certified Sulfur-FRGAS according to the designation by the foreign refiner if this designation is supported by product transfer documents prepared by the foreign refiner as required in paragraph (d) of this section, unless the gasoline is classified as Non-Certified Sulfur-FRGAS under paragraph (g) of this section.
- (3) For each gasoline batch classified as Sulfur-FRGAS, any United States importer must perform the following procedures:
- (i) In the case of both Certified and Non-Certified Sulfur-FRGAS, have an independent third party:
- (A) Determine the volume of gasoline in the vessel;
- (B) Use the foreign refiner's Sulfur-FRGAS certification to determine the name and EPA-assigned registration number of the foreign refinery that produced the Sulfur-FRGAS;
- (C) Determine the name and country of registration of the vessel used to

transport the Sulfur-FRGAS to the United States; and

(D) Determine the date and time the vessel arrives at the United States port of entry.

(ii) In the case of Certified Sulfur-FRGAS, have an independent third

party:

(A) Collect a representative sample from each vessel compartment subsequent to the vessel's arrival at the United States port of entry and prior to off loading any gasoline from the vessel;

(B) Prepare a volume-weighted vessel composite sample from the compartment samples; and

- (C) Determine the sulfur value using the methodologies specified in § 80.330, by:
- (1) The third party analyzing the sample; or

(2) The third party observing the importer analyze the sample.

(4) Any importer must submit reports within thirty days following the date any vessel transporting Sulfur-FRGAS arrives at the United States port of entry:

(i) To the Administrator containing the information determined under paragraph (o)(3) of this section; and

(ii) To the foreign refiner containing the information determined under paragraph (o)(3)(ii) of this section.

- (5) Any United States importer must meet the requirements specified in \$80.195 for any imported gasoline that is not classified as Certified Sulfur-FRGAS under paragraph (o)(2) of this section.
  - (p) [Reserved]
- (q) Withdrawal or suspension of a foreign refinery's baseline EPA may withdraw or suspend a baseline that has been assigned to a foreign refinery where:
- (1) A foreign refiner fails to meet any requirement of this section;
- (2) A foreign government fails to allow EPA inspections as provided in paragraph (i)(1) of this section;
- (3) A foreign refiner asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart; or

(4) A foreign refiner fails to pay a civil or criminal penalty that is not satisfied using the foreign refiner bond specified in paragraph (k) of this section.

(r) Any refiner whose Sulfur-FRGAS is transported into the United States by truck may petition EPA to use alternative procedures to meet the requirements for certification under paragraph (d)(5) of this section, load port and port of entry sampling and testing under paragraphs (f) and (g) of this section, attest under paragraph (h) of this section and importer testing under paragraph (o)(3) of this section.

These alternative procedures must ensure Certified Sulfur-FRGAS remains segregated from Non-Certified Sulfur-FRGAS and from Non-Sulfur-FRGAS until it is imported into the United States. The petition will be evaluated based on whether it adequately addresses the following:

- (1) Provisions for monitoring pipeline shipments, if applicable, from the refinery, that ensure segregation of Certified Sulfur-FRGAS from that refinery from all other gasoline.
- (2) Contracts with any terminals and/ or pipelines that receive and/or transport Certified Sulfur-FRGAS, that prohibit the commingling of Certified Sulfur-FRGAS with any of the following:
- (i) Other Certified Sulfur-FRGAS from other refineries.
  - (ii) All Non-Certified Sulfur-FRGAS.
  - (iii) All Non-Sulfur-FRGAS.
- (3) Procedures for obtaining and reviewing truck loading records and United States import documents for Certified Sulfur-FRGAS to ensure that such gasoline is only loaded into trucks making deliveries to the United States.
- (4) Attest procedures to be conducted annually by an independent third party that review loading records and import documents based on volume reconciliation, or other criteria, to confirm that all Certified Sulfur-FRGAS remains segregated throughout the distribution system and is only loaded into trucks for import into the United States.
- (5) The petition required by this section must be submitted to EPA along with the application for small refiner status and individual refinery sulfur baseline and standards under § 80.235 and this section.
- (s) Additional requirements for petitions, reports and certificates. Any petition for a refinery baseline under paragraph (b) of this section, any alternative procedures under paragraph (r) of this section, any report or other submission required by paragraphs (c), (f)(2), or (i) of this section, and any certification under paragraph (d)(3) of this section must be:
- (1) Submitted in accordance with procedures specified by the Administrator, including use of any forms that may specified by the Administrator.
- (2) Be signed by the president or owner of the foreign refiner company, or by that person's immediate designee, and must contain the following declaration:

I hereby certify: (1) that I have actual authority to sign on behalf of and to bind [insert name of foreign refiner] with regard to all statements contained herein; (2) that I am aware that the information contained herein is being certified, or submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR Part 80, subpart H and that the information is material for determining compliance under these regulations: and (3) that I have read and understand the information being certified or submitted, and this information is true, complete and correct to the best of my knowledge and belief after I have taken reasonable and appropriate steps to verify the accuracy thereof.

I affirm that I have read and understand the provisions of 40 CFR Part 80, subpart H, including 40 CFR § 80.410 [insert name of foreign refiner]. Pursuant to Clean Air Act section 113(c) and Title 18, United States Code, section 1001, the penalty for furnishing false, incomplete or misleading information in this certification or submission is a fine of up to \$10,000, and/or imprisonment for up to five years.

### Attest Engagements

### § 80.415 What are the attest engagement requirements for gasoline sulfur compliance?

Refiners and importers, for each annual averaging period, must arrange to have an attest engagement performed of the underlying documentation that forms the basis of any report required under this section. The attest engagement must comply with the procedures and requirements that apply to refiners and importers under §§ 80.125 through 80.130, and must be submitted to the Administrator of EPA by May 30 of each year.

### PART 85—CONTROL OF AIR POLLUTION FROM MOBILE SOURCES

5. The authority citation for part 85 continues to read as follows:

Authority: 42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7542, 7601(a).

6. Section 85.1515 is amended by redesignating the existing paragraph (c) as paragraph (c)(1) and adding new paragraphs (c)(2), (c)(3), (c)(4) and (c)(5) to read as follows:

### §85.1515 Emission standards and test procedures applicable to imported nonconforming motor vehicles and motor vehicle engines.

(c)(1) \* \* \*

(2) The provisions of paragraph (c)(1) of this section notwithstanding, nonconforming light duty vehicles or

light light-duty trucks (LDV/LLDTs) modified in model years 2004, 2005 or 2006 must meet the interim FTP exhaust and evaporative emission standards for light duty vehicles and light light-duty trucks specified in 40 CFR 86.1811-04(l) and 86.1811-04(e)(5). Nonconforming LDT3s and LDT4s (HLDTs) modified in model years 2004 through 2008 must meet the interim non-Tier 2 FTP exhaust and evaporative standards for HLDTs specified in 40 CFR 86.1811-04(l) and 86.1811–04(e)(5). Optionally, independent commercial importers may elect to meet the Tier 2 FTP exhaust and evaporative emission standards set forth in 40 CFR 86.1811-04(c) and (e) during those years. ICIs are exempt from the Tier 2 and the interim non-Tier 2 phasein percentage requirements described in 40 CFR 86.1811-04.

- (3) Nonconforming light duty vehicles and light light-duty trucks (LDV/LLDTs) modified in model years 2007 or later must meet the exhaust and evaporative emission requirements set forth for all 2007 and later model year LDV/LLDTs in 40 CFR 86.1811-04.
- (4) Nonconforming heavy light-duty trucks (HLDTs) modified in model years 2009 or later must meet the exhaust and evaporative emission requirements set forth for all 2009 and later model year HLDTs in 40 CFR 86.1811-04.
- (5) The requirements of 40 CFR 86.1811–04 related to fleet average NO<sub>X</sub> standards and requirements to comply with such standards do not apply to vehicles modified under this subpart.

### PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY **VEHICLES AND ENGINES**

7. The authority citation for part 86 continues to read as follows:

Authority: 42 U.S.C. 7401-7671q.

8. Section 86.1 is amended by revising the entry for "California Regulatory Requirements Applicable to the National Low Emission Vehicle Program, October, 1996", and by adding an entry in alphabetical order in the table in paragraph (b)(4) to read as follows:

### §86.1 Reference materials.

(b) \* \* \*

(4) \* \* \*

Document No. and name

40 CFR part 86 reference

California Regulatory Requirements Applicable to the "LEV II" Pro- 86.1830-01; 86.1806-01; 86.1810-01; 86.1811-04; 86.1844-01.

gram, including

- 1. Amendments to California Exhaust and Evaporative Emission Standards and Test Procedures for Passenger Cars, Light-duty Trucks and Medium-duty Vehicles and Amendments to California Motor Vehicle Certification, Assembly-line and In-use Test Requirements "CAP 2000".
- 2. California Zero-Emission and Hybrid Electric Vehicle Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Passenger Cars, Light-duty Trucks and Mediumduty Vehicles.
- 3. California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-duty Trucks and Medium-duty Vehicles.
- 4. California Non-Methane Organic Gas Test Procedures.
- 5. California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles.
- 6. California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles.

California Regulatory Requirements Applicable to the National Low Emission Vehicle Program, October 1996.

86.113-004; 86.612-97; 86.1012-97; 86.1702-99; 86.1708-99: 86.1709-99; 86.1717-99; 86.1735-99; 86.1771-99; 86.1775-99: 86.1776-99; 86.1777-99; Appendix XVI; Appendix XVII.

### Subpart B—Emission Regulations for 1997 and Later Model Year New Light-

duty Vehicles and New Light-duty **Trucks**; Test Procedures

9. Section 86.113-04 is added to read as follows:

#### §86.113-04 Fuel Specifications.

This section includes text that specifies requirements that differ from § 86.113–94. Where a paragraph in § 86.113–94 is identical and applicable to this section, this will be indicated by specifying the corresponding paragraph and the statement "[Reserved]. For guidance see § 86.113-94."

(a) Gasoline fuel. (1) Gasoline having the following specifications will be used

by the Administrator in exhaust and evaporative emission testing of petroleum-fueled Otto-cycle vehicles. Gasoline having the following specification or substantially equivalent specifications Approved by the Administrator, must be used by the manufacturer in exhaust and evaporative testing except that octane specifications do not apply:

Item	ASTM test meth- od No.	Value	
Octane, Research, Min. Sensitivity, Min Lead (organic), maximum: g/U.S. gal. (g/liter)	D2699	93. .7.5	
Lead (organic), maximum: g/U.S. gal. (g/liter)	D3237 D86	0.050 (0.013).	
10 pct. point: deg.F (deg.C)  50 pct. point: deg.F. (deg.C)  90 pct. point: deg.F (deg.C)		75–95 (23.9–35). 120–135 (48.9–57.2). 200–230 (93.3–110). 300–325 (148.9–162.8).	
EP, max: deg.F (deg.C)D86	D1266 D3231 D3231	415 (212.8). 0.003–0.008. 0.005 (0.0013). 8.7–9.2 (60.0–63.4).	
Hydrocarbon composition Olefins, max. pct. Aromatics, max, pct. Saturates	D1319	10. 35. Remainder.	

<sup>&</sup>lt;sup>1</sup> For testing at altitudes above 1,219 m (4000 feet), the specified range is 75–105 deg. F (23.9–40.6 deg. C)

(2) For light-duty vehicles and lightduty trucks certified for 50 state sale, "California Phase 2" gasoline having the specifications listed in the table in this

section may be used in exhaust emission testing as an option to the specifications in paragraph (a)(1) of this section. If a manufacturer elects to

utilize this option, exhaust emission testing must be conducted by the manufacturer with gasoline having the specifications listed in the table in this paragraph (a)(2) and the Administrator must also conduct exhaust emission testing with gasoline having the specifications listed in the table in this

paragraph (a)(2), except that the Administrator may use or require the use of test fuel meeting the specifications in paragraph (a)(1) of this section for selective enforcement auditing and in-use testing. All fuel property test methods for this fuel are contained in Chapter 4 of the California

<sup>&</sup>lt;sup>2</sup> For testing which is unrelated to evaporative emission control, the specified range is 8.0-9.2 psi (55.2–63.4 kPa). <sup>3</sup> For testing at altitudes above 1,219 m (4000 feet), the specified range is 7.6–8.0 psi (52-55 kPa).

Regulatory Requirements Applicable to the National Low Emission Vehicle Program (October, 1996). These

requirements are incorporated by reference (see § 86.1). The table follows:

Fuel property	Limit
Octane, (R+M)/2 (min)	91.
Sensitivity (min)	7.5.
Lead, g/gal (max) (No lead added)	0–0.01.
10 pct. point,	130–150.
50 pct. point,	200–210.
90 pct. point,	290–300.
EP, maximum	390.
Residue, vol% (max)	2.0.
Sulfur, ppm by wt	30–40.
Phosphorous, g/gal (max)	0.005.
RVP, psi	6.7–7.0.
Olefins, vol %	4.0–6.0.
Total Aromatic Hydrocarbons (vol%)	22–25.
Benzene, vol %	0.8–1.0.
Multi-Substituted Alkyl Aromatic Hydrocarbons, vol%	12–14.
MTBE, vol%	10.8–11.2.
Additives	See Chapter 4 of the California Regulatory Requirements Applicable to the National Low Emission Vehicle Program (October, 1996). These procedures are incorporated by reference (see § 86.1).
Copper Corrosion	No. 1.
Gum, Washed, mg/100 ml (max)	3.0.
Oxidation Stability, minutes (min)	1000.
Specific Gravity	No limit; report to purchaser required.
Heat of Combustion	No limit; report to purchaser required.
Carbon, wt%	No limit; report to purchaser required.
Hydrogen, wt%	No limit; report to purchaser required.

- (3)(i) Unless otherwise approved by the Administrator, unleaded gasoline representative of commercial gasoline that will be generally available through retail outlets must be used in service accumulation. Unless otherwise approved by the Administrator, where the vehicle is to be used for evaporative emission durability demonstration, such fuel must contain ethanol as required by § 86.1824–01(a)(2)(iii). Leaded gasoline must not be used in service accumulation.
- (ii) The octane rating of the gasoline used must be no higher than 1.0 Research octane number above the minimum recommended by the manufacturer and have a minimum sensitivity of 7.5 octane numbers, where sensitivity is defined as the Research octane number minus the Motor octane number.
- (iii) The Reid Vapor Pressure of the gasoline used must be characteristic of the motor fuel used during the season in which the service accumulation takes place.
- (4) The specification range of the gasoline to be used under paragraph (a) of this section must be reported in

accordance with §§ 86.094-21(b)(3) and 86.1844-01.

- (b) through (g) "[Reserved]. For guidance see § 86.113-94."
- 6. Section 86.129-00 is amended by adding a new paragraph (f)(1)(ii)(C) to read as follows:

### §86.129-00 Road load power, test weight, and inertia weight class determination.

(f) \* \* \*

- (1) \* \* \*
- (ii) \* \* \*
- (C) Regardless of other requirements in this section relating to the testing of heavy light duty trucks, for Tier 2 heavy light duty trucks, the test weight basis for FTP and SFTP testing (both US06 and SC03) is the vehicle curb weight plus 300 pounds.

Subpart C—Emission Regulations for 1994 and Later Model Year Gasoline-Fueled New Light-duty Vehicles and New Light-duty Trucks; Cold **Temperature Test Procedures** 

10. Section 86.213-04 is added to read as follows:

### §86.213-04 Fuel specifications.

Gasoline having the following specifications will be used by the Administrator. Gasoline having the specifications set forth in the table in this section may be used by the manufacturer except that the octane specification does not apply. In lieu of using gasoline having these specifications, the manufacturer may, for certification testing, use gasoline having the specifications specified in §86.113-04 provided the cold CO emissions are not decreased. Documentation showing that cold CO emissions are not decreased must be maintained by the manufacturer and must be made available to the Administrator upon request. The table listing the cold CO fuel specifications described in the text in this section follows:

### TABLE—COLD CO FUEL SPECIFICATIONS

Maria	Cold CO low octane value or		Cold CO high oc-	
Item	ASTM test	Range	tane 1 value or range	
(RON+MON)/2, min	D2699 D2699	87.8 <plus-minus>.3</plus-minus>	92.3 <plus-minus>0.5. 7.5.</plus-minus>	
IBP, deg.F	D86	76–96	76–96.	
10% point, deg.F	D86	98–118	105–125.	
50% point, deg.F	D86	179–214	195–225.	
90% point, deg.F	D86	316–346	316–346.	
EP, max, deg.F	D86	413	413.	
Sulfur, wt. %	D3120	0.003-0.008	0.003-0.008.	
Phosphorous, g/U.S gal, max	D3231	0.005	0.005.	
_ead, g/gal, max		0.01	0.01.	
RVP, psi	D4953 D1319	11.5 <plus-minus>.3</plus-minus>	11.5 <plus-minus>.3.</plus-minus>	
Olefins, vol. pct		12.5 <plus-minus>5.0</plus-minus>	10.0 <plus-minus>5.0.</plus-minus>	
Aromatics, vol. pct		26.4 <plus-minus>4.0</plus-minus>	32.0 <plus-minus>4.0.</plus-minus>	
Saturates		Remainder	Remainder.	

<sup>1</sup> Gasoline having these specifications may be used for vehicles which are designed for the use of high-octane premium fuel.

# Subpart R—General Provisions for the Voluntary National Low Emission Vehicle Program for Light-duty Vehicles and Light-duty Trucks

11. Section 86.1701–99 is amended by adding paragraph (f) to read as follows:

### § 86.1701-99 General applicability.

\* \* \* \* \*

(f) The provisions of this subpart are not applicable to 2004 or later model year vehicles, except where specific references to provisions of this subpart are made in conjunction with provisions applicable to such vehicles.

### Subpart S—General Compliance Provisions for Control of Air Pollution From New and In-use Light-duty Vehicles and Light-duty Trucks

12. Section 86.1801–01 is amended by revising the first sentence of paragraph (a) and the first sentence of paragraph (e) and adding paragraphs (f) and (g) to read as follows:

### §86.1801-01 Applicability.

- (a) Except as otherwise indicated, the provisions of this subpart apply to new 2001 and later model year Otto-cycle and diesel cycle light duty vehicles and light duty trucks, including alternative fueled, hybrid electric, and zero emission vehicles.\*
- (e) National Low Emission Vehicle Program for light-duty vehicles and light light-duty trucks. A manufacturer may elect to certify 2001–2003 model year light duty vehicles and light light-duty trucks (LDV/LLDTs) to the provisions of the National Low Emission Vehicle Program contained in Subpart R of this part. \* \*

- (f) "Early" Tier 2 LDV/Ts. Any LDV/LLDT which is certified to Tier 2 FTP exhaust standards prior to the 2004 model year, or any HLDT which is certified to the Tier 2 FTP exhaust standards prior to the 2008 model year, to utilize alternate phase-in schedules and/or for purposes of generating and banking  $NO_{\rm X}$  credits, must comply with all the exhaust emission requirements applicable to Tier 2 LDV/Ts under this subpart.
- (g) Interim non-Tier 2 LDV/Ts. Model year 2004–2008 LDV/Ts, that do not comply with the Tier 2 FTP exhaust emission requirements (interim non-Tier 2 LDV/Ts) as permitted under the phase-in requirements of § 86.1811–04(k) must comply with all interim non-Tier 2 exhaust emission requirements contained in this subpart, including FTP exhaust emission requirements for all interim non-Tier 2 LDV/Ts found at § 86.1811–04(l). Separate emission requirements are provided for interim non-Tier 2 LDV/LLDTs and interim non-Tier 2 HLDTs.
- 13. Section 86.1803–01 is amended by adding the following definitions in alphabetical order to read as follows:

### § 86.1803-01 Definitions.

\* \* \* \* \*

Bin or emission bin means a set of emission standards applicable to exhaust pollutants measured on the Federal Test Procedure (FTP). A bin is equivalent to a horizontal row of FTP standards in the various charts shown in this subpart. Manufacturers are generally free to choose the bin of standards that will apply to a certain test group of vehicles, provided that on a sales weighted average of those bins, all of their vehicles meet a specified

fleet average standard for a particular pollutant.

\* \* \* \* \*

CalLEV II or California LEV II refers to California's second phase of its low emission vehicle (LEV) program. This program was adopted at the hearing of the California Air Resources Board held on November 5, 1998.

\* \* \* \* \*

Fleet average  $NO_X$  standard means, for light-duty vehicles and light-duty trucks, a  $NO_X$  standard imposed over an individual manufacturer's total U.S. sales (or a fraction of total U.S. sales during phase-in years), as "U.S. sales" is defined in this subpart, of light duty vehicles and trucks of a given model year. Manufacturers determine their compliance with such a standard by averaging, on a sales weighted basis, the individual  $NO_X$  standards they choose for the fleet of light duty vehicles and trucks they sell of that model year.

Interim non-Tier 2 vehicle or interim non-Tier 2 LDV/T or interim vehicle means any 2004 or later model year light duty vehicle or light duty truck not certified to Tier 2 FTP exhaust emission standards during the Tier 2 phase-in period.

LDV/T means light duty vehicles and light duty trucks collectively, without

regard to category.

\* \* \* \* \*

Non-methane organic gases (NMOG) means the sum of oxygenated and non-oxygenated hydrocarbons contained in a gas sample as measured in accordance with the California Non-Methane Organic Gas Test Procedures. These

requirements are incorporated by reference (see § 86.1).

\* \* \* \* \*

Periodically regenerating trap oxidizer system means a trap oxidizer that utilizes, during normal driving conditions, an automated regeneration mode for cleaning the trap, the operation of which can be easily detected.

\* \* \* \* \*

Point of first sale means the location where the completed light duty vehicle or light duty truck is first purchased. This term is synonymous with final product purchase location. The point of first sale may be a retail customer, dealer, distributor, fleet operator, broker, secondary manufacturer, or any other entity which purchases a vehicle from a manufacturer. In cases where the end user purchases the completed vehicle directly from the manufacturer, the end user is the point of first sale.

Round, rounded or rounding means, unless otherwise specified, that numbers will be rounded according to ASTM-E29-93a, which is incorporated by reference in this part pursuant to § 86.1.

\* \* \* \* \*

Tier 2 standards means those FTP exhaust emission standards applicable to new light-duty vehicles and light light duty trucks and that begin a phase-in in the 2004 model year, and those exhaust emission standards applicable to heavy light duty trucks that begin a phase-in in the 2008 model year. These standards are found in § 86.1811–04.

Tier 2 vehicle or Tier 2 LDV/T means any light duty vehicle or light duty truck, including HEVs and ZEVs, of the 2004 or later model year certified to comply with the Tier 2 FTP exhaust standards contained in § 86.1811–04. The term Tier 2 vehicle also includes any light duty vehicle or truck, of any model year, which is certified to Tier 2 FTP exhaust standards for purposes of generating or banking early NO<sub>x</sub> credits for averaging under Tier 2 requirements as allowed in this subpart.

\* \* \* \* \*

U.S. sales means, unless otherwise specified, sales in any state of the United States except for California or a state that has adopted California motor vehicle standards for that model year pursuant to section 177 of the Clean Air Act. This definition applies only to those regulatory requirements addressing Tier 2 and interim non-Tier 2 LDV/Ts.

\* \* \* \* \*

14. Section 86.1804–01 is amended by adding the following acronyms and

abbreviations, in alphabetical order, to read as follows:

### §86.1804–01 Acronyms and abbreviations.

HCHO—Formaldehyde.

\* \* \* \* \* \*

HEV—Hybrid electric vehicle.

\* \* \* \* \*

HLDT—Heavy light duty truck. Includes only those trucks over 6000 pounds GVWR (LDT3s and LDT4s).

\* \* \* \* \*

LDV/LLDT—Light duty vehicles and light light-duty trucks. Includes only those trucks rated at 6000 pounds GVWR or less (LDT1s and LDT2s).

LDV/T—Light duty vehicles and light duty trucks. This term is used collectively to include, or to show that a provision applies to, all light duty vehicles and all categories of light duty trucks, i.e.

LDT1, LDT2, LDT3 and LDT4. LEV—Low Emission Vehicle.

LEV—Low Emission Vehicle.

\* \* \* \* \*

NLEV—Refers to the National Low Emission Vehicle Program. Regulations governing this program are found at subpart R of this part.

\* \* \* \* \* \*

NMOG—Non-methane organic gases.

\* \* \* \*

RAF—Reactivity adjustment factor.

SULEV—Super Ultra Low Emission Vehicle.

TLEV—Transitional Low Emission Vehicle.

\* \* \* \*

ULEV—Ultra Low Emission Vehicle.

\* \* \* \* \*

ZEV—Zero Emission Vehicle.

\* \* \* \* \*

15. Section 86.1805–04 is added to read as follows:

### § 86.1805-04 Useful life.

(a) Except as required under paragraph (b) of this section or permitted under paragraphs (d) and (e) of this section, the full useful life for all LDVs, LDT1s and LDT2s is a period of use of 10 years or 120,000 miles, whichever occurs first. For all HLDTs, full useful life is a period of 11 years or 120,000 miles, whichever occurs first. This full useful life applies to exhaust, evaporative and refueling emission requirements except for standards which are specified to only be applicable at the time of certification.

(b) Manufacturers may elect to optionally certify a test group to the Tier 2 exhaust emission standards for 150,000 miles to gain additional  $NO_X$  credits, as permitted in § 86.1860–04(g). In such cases, useful life is a period of use of 15 years or 150,000 miles, whichever occurs first, for all exhaust,

evaporative and refueling emission requirements except for cold CO standards and standards which are applicable only at the time of certification.

(c) Where intermediate useful life exhaust emission standards are applicable, such standards are applicable for five years or 50,000 miles, whichever occurs first.

(d)(1) Manufacturers may petition the Administrator to provide alternative useful life periods for idle CO requirements for light duty trucks when they believe that the useful life period described in this section is significantly unrepresentative for one or more test groups (either too long or too short). This petition must include the full rationale behind the request, together with any supporting data and other evidence. Based on this or other information, the Administrator may assign an alternative useful life period. Any petition should be submitted in a timely manner to allow adequate time for a thorough evaluation.

(2) Where cold CO standards are applicable, the useful life requirement for compliance with the cold CO standard only, is 5 years or 50,000 miles whichever occurs first.

(e) Where LDVs, LDT1s and LDT2s of the 2003 or earlier model years are certified to Tier 2 exhaust emission standards for purposes of generating early  $NO_X$  credits, manufacturers may certify those vehicles to full useful lives of 100,000 miles in lieu of the otherwise required 120,000 mile full useful lives, as provided under § 86.1861–04(c)(4).

16. Section 86.1806–01 is amended by adding paragraph (b)(8) to read as

follows:

### § 86.1806-01 On-board diagnostics.

\* \* \* (b)\* \* \*

(8) For Tier 2 and interim non-Tier 2 hybrid electric vehicles (HEVs) only. Unless added to HEVs in compliance with other requirements of this section, or unless otherwise approved by the Administrator:

- (i) The manufacturer must equip each HEV with a maintenance indicator consisting of a light that must activate automatically by illuminating the first time the minimum performance level is observed for each battery system component. Possible battery system components requiring monitoring are: battery water level, temperature control, pressure control, and other parameters critical for determining battery condition.
- (ii) The manufacturer must equip "offvehicle charge capable HEVs" with a useful life indicator for the battery

system consisting of a light that must illuminate the first time the battery system is unable to achieve an allelectric operating range (starting from a full state-of-charge) which is at least 75 percent of the range determined for the vehicle in the Urban Driving Schedule portion of the All-Electric Range Test (see the California Zero-Emission and Hybrid Electric Vehicle Exhaust **Emission Standards and Test** Procedures for 2003 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium Duty Vehicles. These requirements are incorporated by reference (see § 86.1)

(iii) The manufacturer must equip each HEV with a separate odometer or other device subject to the approval of the Administrator that can accurately measure the mileage accumulation on the engines used in these vehicles.

17. Section 86.1807–01 is amended by revising paragraph (a)(3)(vi) to read as follows:

#### §86.1807-01 Vehicle labeling.

- (a) \* \* \*
- (3) \* \* \*
- (vi) The exhaust emission standards to which the test group is certified, and for test groups having different in-use standards, the corresponding exhaust emission standards that the test group must meet in use. In lieu of this requirement, manufacturers may use the standardized test group name designated by EPA;
- 18. Section 86.1809–01 is amended by adding paragraph (e) to read as follows:

### § 86.1809–01 Prohibition of defeat devices.

- (e) For each test group of Tier 2 and interim non-Tier 2 LDV/Ts, the manufacturer must submit, with the Part II certification application, an engineering evaluation demonstrating to the satisfaction of the Administrator that a discontinuity in emissions of nonmethane organic gases, carbon monoxide, oxides of nitrogen and formaldehyde measured on the Federal Test Procedure (subpart B of this part) does not occur in the temperature range of 20 to 86 degrees F. For diesel vehicles, the engineering evaluation must also include particulate emissions.
- 19. Section 86.1810–01 is amended by adding two new sentences to the end of the introductory text; by adding a new sentence to the end of paragraph (i)(6); and by adding new paragraphs (i)(13), (i)(14), (o) and (p) to read as follows:

## § 86.1810-01 General standards; increase in emissions; unsafe conditions; waivers.

\* \* For Tier 2 and interim non-Tier 2 LDV/Ts, this section also applies to hybrid electric vehicles and zero emission vehicles. Unless otherwise specified, requirements and provisions of this subpart applicable to methanol fueled vehicles are also applicable to Tier 2 and interim non-Tier 2 ethanol fueled LDV/Ts.

\* \* \* \* \* \* (i) \* \* \*

(6) \* \* \* For Tier 2 and interim non-Tier 2 LDV/Ts, this provision does not apply to enrichment that occurs upon cold start, warm-up conditions and rapid-throttle motion conditions ("tipin" or "tip-out" conditions).

(13) A/C-on specific calibrations. (i) For Tier 2 and interim non-Tier 2 LDV/Ts, A/C-on specific calibrations (e.g. air to fuel ratio, spark timing, and exhaust gas recirculation), may be used which differ from A/C-off calibrations for given engine operating conditions (e.g., engine speed, manifold pressure, coolant temperature, air charge temperature, and any other parameters).

(ii) Such calibrations must not unnecessarily reduce the NMHC+NO<sub>x</sub> emission control effectiveness during A/C-on operation when the vehicle is operated under conditions which may reasonably be expected to be encountered during normal operation and use.

(iii) If reductions in control system NMHC+NO $_{\rm X}$  effectiveness do occur as a result of such calibrations, the manufacturer must, in the Application for Certification, specify the circumstances under which such reductions do occur, and the reason for the use of such calibrations resulting in such reductions in control system effectiveness.

(iv) A/C-on specific "open-loop" or "commanded enrichment" air-fuel enrichment strategies (as defined below), which differ from A/C-off "open-loop" or "commanded enrichment" air-fuel enrichment strategies, may not be used, with the following exceptions: Cold-start and warm-up conditions, or, subject to Administrator approval, conditions requiring the protection of the vehicle, occupants, engine, or emission control hardware. Other than these exceptions, such strategies which are invoked based on manifold pressure, engine speed, throttle position, or other engine parameters must use the same engine parameter criteria for the invoking of this air-fuel enrichment strategy and the same degree of enrichment regardless of

whether the A/C is on or off. "Openloop" or "commanded" air-fuel enrichment strategy is defined as enrichment of the air to fuel ratio beyond stoichiometry for the purposes of increasing engine power output and the protection of engine or emissions control hardware. However, "closedloop biasing," defined as small changes in the air-fuel ratio for the purposes of optimizing vehicle emissions or driveability, must not be considered an "open-loop" or "commanded" air-fuel enrichment strategy. In addition, "transient" air-fuel enrichment strategy (or "tip-in" and "tip-out" enrichment), defined as the temporary use of an airfuel ratio rich of stoichiometry at the beginning or duration of rapid throttle motion, must not be considered an "open-loop" or "commanded" air-fuel enrichment strategy.

(14) "Lean-on-cruise" calibration strategies. (i) For Tier 2 and interim non-Tier 2 LDV/Ts, the manufacturer must state in the Application for Certification whether any "lean-oncruise" strategies are incorporated into the vehicle design. A "lean-on-cruise" air-fuel calibration strategy is defined as the use of an air-fuel ratio significantly greater than stoichiometry, during nondeceleration conditions at speeds above 40 mph. "Lean-on-cruise" air-fuel calibration strategies must not be employed during vehicle operation in normal driving conditions, including A/ C usage, unless at least one of the following conditions is met:

(A) Such strategies are substantially

employed during the FTP or SFTP;
(B) Such strategies are demonstrated not to significantly reduce vehicle NMHC+NO<sub>X</sub> emission control effectiveness over the operating conditions in which they are employed; or

- (C) Such strategies are demonstrated to be necessary to protect the vehicle occupants, engine, or emission control hardware.
- (ii) If the manufacturer proposes to use a "lean-on-cruise" calibration strategy, the manufacturer must specify the circumstances under which such a calibration would be used, and the reason or reasons for the proposed use of such a calibration.

(o) Unless otherwise approved by the Administrator, manufacturers must measure NMOG emissions in accordance with the California Non-Methane Organic Gas Test Procedures. These procedures are incorporated by reference (see § 86.1).

(p) For diesel vehicles, manufacturers may measure non-methane hydrocarbons in lieu of NMOG.

20. Section 86.1811–01 is amended by adding a sentence to the end of the introductory text to read as follows:

## § 86.1811–01 Emission standards for light-duty vehicles.

\* \* \* This section does not apply to 2004 and later model year vehicles, except as specifically referenced by \$86.1811-04.

\* \* \* \* \*

21. Section 86.1811–04 is added to read as follows:

## § 86.1811–04 Emission standards for light duty vehicles and light duty trucks.

(a) Applicability. (1) This section contains regulations implementing emission standards for all light duty vehicles and light duty trucks (LDV/Ts). This section applies to 2004 and later model year LDV/Ts fueled by gasoline, diesel, methanol, ethanol, natural gas and liquefied petroleum gas fuels, except as noted. Additionally, this section contains provisions applicable to hybrid electric vehicles (HEVs) and zero emission vehicles (ZEVs). Multifueled vehicles must comply with all requirements established for each consumed fuel.

(2)(i) This section also applies to LDV/LLDTs of model years prior to 2004, when manufacturers certify such vehicles to Tier 2 exhaust emission requirements to utilize alternate phase-in schedules, as allowed under paragraph (k)(6) of this section, and/or to earn NO<sub>X</sub> credits for use in complying with the Tier 2 fleet average NO<sub>X</sub> standard which takes effect in the 2004 model year for LDV/LLDTs.

- (ii) This section also applies to HLDTs of model years prior to 2004, when manufacturers certify such vehicles to Tier 2 exhaust emission requirements to utilize alternate phase-in schedules as allowed under paragraph (k)(6) of this section.
- (3) Except where otherwise specified, this section applies instead of

- §§ 86.1811–01, 86.1812–01, 86.1813–01, 86.1814–01, 86.1814–02, 86.1815–01, and 86.1815–02.
- (4) Except where otherwise specified, the provisions of this section apply equally to LDVs and all categories of LDTs, as reflected by the use of the term LDV/T.
- (5) The exhaust emission standards and evaporative emission standards of this section apply equally to certification and in-use LDV/Ts unless otherwise specified.
- (b) *Test weight.* (1) Except as required in paragraph (b)(2) of this section, emission testing of all LDV/Ts to determine compliance with any exhaust or evaporative emission standard set forth in this part must be on a loaded vehicle weight (LVW) basis, as that term is defined in this subpart.

(2) Interim non-Tier 2 HLDTs tested to Tier 1 SFTP standards, must be tested on an adjusted loaded vehicle weight (ALVW) basis, as that term is defined in this subpart, during the SC03 element of the SFTP.

- (c) Tier 2 FTP exhaust emission standards. Exhaust emissions from Tier 2 LDV/Ts must not exceed the standards in Table S04–1 of this section at full useful life when tested over the Federal Test Procedure (FTP) described in subpart B of this part. Exhaust emissions from Tier 2 LDV/Ts must not exceed the standards in Table S04–2 of this section at intermediate useful life, if applicable, when tested over the FTP. Manufacturers of LDV/Ts must meet these standards according to the phase-in schedules shown in Tables S04–6 and S04–7 of this section.
- (1) For a given test group a manufacturer desires to certify to operate only on one fuel, the manufacturer must select a set of standards from the same bin (line or row) in Table S04–1 of this section for non-methane organic gases (NMOG), carbon monoxide (CO), oxides of nitrogen (NO<sub>X</sub>), formaldehyde (HCHO)

- and particulate matter (PM). The manufacturer must certify the test group to meet those standards, subject to all the applicable provisions of this subpart. The manufacturer must also certify the test group to meet the intermediate useful life standards (if any) in Table S04–2 of this section having the same EPA bin reference number as the chosen full useful life standards.
- (2) For a given test group of flexiblefueled, bi-fuel or dual fuel vehicles when operated on the alcohol or gaseous fuel they are designed to use, manufacturers must select a bin of standards from Table S04-1 of this section and the corresponding bin in Table S04–2, if any. When these flexible-fueled, bi-fuel or dual fuel vehicles are certified to operate on gasoline or diesel fuel, the manufacturer may choose to comply with the next numerically higher NMOG standard above the bin which contains the standards selected for certification on the gaseous or alcohol fuel.
- (3) The bin 7 NMOG value may be used by alternative fueled vehicles when operated on gasoline or diesel fuel when such vehicles are certified to bin 6 standards on the gaseous or alcohol fuel on which they are designed to operate.
- (4) In addition to the bins shown in Tables S04–1 and 2 of this section, manufacturers may also use the applicable interim non-Tier 2 bins for Tier 2 vehicles. These bins are shown in Tables S04–8 and 9 of this section for LDV/LLDTs and Tables S04–10 and 11 of this section for HLDTs. These bins may only be used through the last model year of the duration of the applicable interim program, i.e. 2006 for LDV/LLDTs and 2008 for HLDTs. In a given model year, an individual vehicle may not be included in both the Tier 2 program and an interim program.
  - (5) Tables S04-1 and S04-2 follow:

TABLE S04-1.—TIER 2 LIGHT DUTY FULL USEFUL LIFE EXHAUST MASS EMISSION STANDARDS [Grams per mile]

EPA bin No.	NMOG	СО	НСНО	NO <sub>X</sub>	PM
7	a 0.156				
7	0.125	4.2	.018	0.20	0.02
6	0.090	4.2	0.018	0.15	0.02
5	0.090	4.2	0.018	0.07	0.01
4	0.055	2.1	0.011	0.07	0.01
3	0.070	2.1	0.011	0.04	0.01
2	0.010	2.1	0.004	0.02	0.01
1	0.000	0.0	0.000	0.00	0.0

Applicable only to flexible-fueled and dual-fuel bin 7 vehicles when certifying for operation on gasoline.

TABLE S04-2.—TIER 2 LIGHT DUTY INTERMEDIATE USEFUL LIFE EXHAUST MASS EMISSION STANDARDS
[Grams per mile]

EPA bin No.	NMOG	СО	НСНО	$NO_X$	РМь
7	a 0.125				
7	0.100 0.075	3.4	0.015 0.015	0.14	
5	0.075	3.4	0.015	0.05	
4	0.040	1.7	0.008	0.05	

- <sup>a</sup> Applicable only to flexible-fueled and dual-fuel bin 7 vehicles when certifying for operation on gasoline.
- <sup>b</sup> The full useful life PM standards from Table S04–1 also apply at intermediate useful life.
- (d) Fleet average NO<sub>X</sub> Standards. (1) For a given individual model year's sales of Tier 2 LDV/Ts, including model years during the phase-in years of the Tier 2 standards, manufacturers must comply with a fleet average oxides of nitrogen (NO<sub>X</sub>) standard of 0.07 grams per mile. The manufacturer must calculate its fleet average NO<sub>X</sub> emission level(s) as described in § 86.1860–04. Up through and including model year 2008, manufacturers must calculate separate fleet average NO<sub>X</sub> emission levels for LDV/LLDTs and HLDTs as described in § 86.1860–04.
- (2) For Early Tier 2 LDV/LLDTs. For model years prior to 2004, where the manufacturer desires to bank early Tier 2  $NO_X$  credits as permitted under  $\S$  86.1861(c), the manufacturer must comply with a fleet average standard of 0.07 grams per mile for its Tier 2 LDV/LLDTs. Manufacturers must determine compliance with the  $NO_X$  fleet average standard according to regulations in  $\S$  86.1860–04.
- (3) For Early Tier 2 HLDTs. For model years prior to 2008, where the manufacturer desires to bank early Tier 2 NO<sub>x</sub> credits as permitted under § 86.1861(c), the manufacturer must comply with a fleet average standard of 0.07 grams per mile for its Tier 2 HLDTs. Manufacturers must determine compliance with the NO<sub>x</sub> fleet average standard according to regulations in § 86.1860–04.
- (e) Evaporative emission standards. Consistent with the phase-in requirements in paragraph (k) of this

- section, evaporative emissions from gasoline-fueled, natural gas-fueled, liquefied petroleum gas-fueled, ethanol-fueled and methanol-fueled LDV/Ts must not exceed the standards in this paragraph. The standards apply equally to certification and in-use LDV/Ts, except that the spitback standard applies only to newly assembled LDV/Ts.
- (1) Diurnal-plus-hot soak evaporative hydrocarbon standards. Hydrocarbons for LDV/Ts must not exceed the diurnal plus hot soak standards shown in Table S04–3 for the full three diurnal test sequence and for the supplemental two diurnal test sequence. Table S04–3 follows:

TABLE S04-3.—LIGHT-DUTY DIURNAL PLUS HOT SOAK EVAPORATIVE EMISSION STANDARDS

[Grams per test]

Vehicle category	3 day diur- nal + hot Soak	Supple- mental 2 day diur- nal + hot soak
LDVs, LDT1s and LDT2s LDT3s and LDT4s	0.95 1.2	1.2 1.5

- (2) Running loss standard. Hydrocarbons for LDV/Ts measured on the running loss test must not exceed 0.05 grams per mile.
- (3) Refueling emission standards. Refueling emissions must not exceed the following standards:

- (i) For gasoline-fueled, diesel-fueled and methanol-fueled LDV/Ts: 0.20 grams hydrocarbon per gallon (0.053 grams per liter) of fuel dispensed.
- (ii) For liquefied petroleum gas-fueled LDV/Ts: 0.15 grams hydrocarbon per gallon (0.04 grams per liter) of fuel dispensed.
- (iii) Refueling standards for LDT3s and LDT4s are subject to the phase-in requirements found in § 86.1810–01(k).
- (4) Spitback standards. For gasoline and methanol fueled LDV/Ts, hydrocarbons measured on the fuel dispensing spitback test must not exceed 1.0 grams hydrocarbon (carbon if methanol-fueled) per test.
- (5) Vehicles not certified to meet the evaporative emission standards in this paragraph (e) as permitted under the phase-in schedule of paragraph (k) of this section, must meet applicable evaporative emission standards in \$\ \\$8.1811-01, 86.1812-01, 86.1813-01, 86.1814-02 or 86.1815-02 except that all LDV/Ts must meet the refueling emission standards in paragraph (e)(3) of this section.
- (f) Supplemental exhaust emission standards for LDV/Ts. (1) Supplemental exhaust emissions from gasoline-fueled and diesel fueled LDV/Ts must not exceed the standards in Table S04–4 at full useful life. Supplemental exhaust emission standards are not applicable to alternative fueled LDV/Ts, or flexible fueled LDV/Ts when operated on a fuel other than gasoline or diesel. Table S04–4 follows:

TABLE S04-4.— FULL USEFUL LIFE SUPPLEMENTAL EMISSION STANDARDS (SFTP STANDARDS) FOR LDV/TS [Grams/mile]

Vehicle category	USO6	USO6	SCO3	SCO3
	NMHC+NO <sub>X</sub>	CO	NMHC+NO <sub>X</sub>	CO
LDV/LDT1 LDT2 LDT3 LDT4	0.20	11.1	0.26	4.2
	0.37	14.6	0.39	5.5
	0.53	16.9	0.44	6.4
	0.78	19.3	0.62	7.3

(2) Gasoline-fueled LDV/Ts, diesel-fueled LDV/Ts and flexible fueled LDV/Ts when operated on gasoline or diesel fuel, and subject to intermediate useful life FTP standards, must not exceed the intermediate useful life supplemental emission standards in Table S04–5, as follows:

TABLE S04-5.—INTERMEDIATE USEFUL LIFE SUPPLEMENTAL EMISSION STANDARDS (SFTP STANDARDS) FOR	LDV/Ts
[Grams/mile]	

Vehicle category	USO6	USO6	SCO3	SCO3
	NMHC+NO <sub>X</sub>	CO	NMHC+NO <sub>X</sub>	CO
LDV/LDT1	0.16	9.0	0.22	3.0
	0.30	11.6	0.32	3.9
	0.45	11.6	0.36	3.9
	0.67	13.2	0.51	4.4

- (3) For interim non-Tier 2 gasoline, diesel and flexible-fueled LDT3s and LDT4s, manufacturers may, at their option, meet the gasoline SFTP standards found in §§ 86.1814–02 and 86.1815–02, respectively.
- (4) Interim non-Tier 2 gasoline, diesel and flexible-fueled LDV/LLDTs certified to bin 5 FTP exhaust emission standards from Table S04–8 in this section may meet the gasoline Tier 1 SFTP requirements found at § 86.1811–01(b).
- (g) Cold temperature exhaust emission standards for LDV/Ts. These standards are applicable only to gasoline fueled LDV/Ts. For cold temperature exhaust emission standards, a useful life of 50,000 miles applies.
- (1) For LDVs and LDT1s, the standard is 10.0 grams per mile CO.
- (2) For LDT2s, LDT3s and LDT4s, the standard is 12.5 grams per mile CO.
- (h) Certification short test exhaust emission standards for LDV/Ts.
  Certification short test emissions from all gasoline-fueled otto cycle LDV/Ts must not exceed the following standards:
- (1) Hydrocarbons: 100 ppm as hexane, for certification and SEA testing; 220 ppm as hexane, for in-use testing.
- (2) Carbon monoxide: 0.5% for certification and SEA testing; 1.2% for in-use testing.
- (i) Idle exhaust emission standards for light duty trucks. Exhaust emissions of carbon monoxide from gasoline, methanol, natural gas, and liquefied petroleum gas-fueled light duty trucks must not exceed 0.5% of exhaust gas flow at curb idle for the useful life of the trucks as defined in this part. This standard does not apply to light duty vehicles.
- (j) Highway  $NO_X$  exhaust emission standard for LDV/Ts. The maximum projected  $NO_X$  emissions measured on the federal Highway Fuel Economy Test in 40 CFR part 600, subpart B, must not be greater than 1.33 times the applicable FTP  $NO_X$  standard to which the manufacturer certifies the test group. Both the projected emissions and the product of the  $NO_X$  standard and 1.33 must be rounded to the nearest 0.01 g/mi before being compared.

(k) Phase-in of the Tier 2 FTP exhaust and evaporative requirements; small volume manufacturer flexibilities. (1) Manufacturers must comply with the phase-in requirements in Tables S04–6 and S04–7 of this section for the Tier 2 FTP exhaust emission requirements specified in paragraph (c) of this section. Separate phase-in schedules are provided for LDV/LLDTs and HLDTs. These requirements specify the minimum percentage of the manufacturer's LDV/LLDT and HLDT U.S. sales, by model year, that must meet the Tier 2 requirements for their full useful lives. Tables S04-6 and S04-7 follow:

TABLE S04-6.—PHASE-IN PERCENT-AGES FOR LDV/LLDT TIER 2 RE-QUIREMENTS

Model year	Percentage of LDV/LLDTs that must meet tier 2 require- ments
2004	25 50 75 100

TABLE S04-7.—PHASE-IN PERCENT-AGES FOR HLDT TIER 2 REQUIRE-MENTS

Model year	Percentage of HLDTs that must meet tier 2 require- ments
20082009 and subsequent	50 100

- (2) Manufacturers must also comply with the phase-in requirements in Tables S04–6 and S04–7 of this section for the evaporative emission requirements contained in paragraph (e) of this section.
- (3) Manufacturers may opt to use different LDV/LLDTs and HLDTs to meet the phase-in requirements for evaporative emissions and FTP exhaust emissions, provided that the manufacturer meets the minimum

- phase-in requirements in Table S04–6 and Table S04–7 of this section for both FTP exhaust and evaporative emissions. A LDV or LDT counted toward compliance with any phase-in requirement for FTP exhaust or evaporative standards, must comply with all applicable Tier 2 exhaust requirements or all evaporative requirements, as applicable, described in this section.
- (4) LDVs and LDTs not certified to meet the Tier 2 FTP exhaust requirements during model years 2004-2008, as allowed under this subpart, are subject to the provisions of paragraph (l) of this section. LDVs and LDTs not certified to meet the evaporative requirements in paragraph (e) of this section during model years 2004-2008, as allowed under this subpart, must meet all evaporative requirements found in §§ 86.1811-01, 86.1812-01, 86.1813-01, 86.1814–02 and 86.1815–02 as applicable, and the refueling requirements found in paragraph (e)(3) of this section.
- (5)(i) Small volume manufacturers, as defined in this part, are exempt from the LDV/LLDT phase-in requirements for model years 2004, 2005 and 2006 in Table S04–6, but must comply with the 100% requirement for the 2007 and later model years.
- (ii) Small volume manufacturers, as defined in this part, are exempt from the HLDT phase-in requirement for model year 2008 in Table S04–7 of this section and the interim fleet average  $NO_X$  standard and the phase-in of the HLDT interim non-Tier 2 FTP exhaust standards for the 2004, 2005 and 2006 model years.
- (iii) Šmall volume manufacturers must comply with the interim non-Tier 2 FTP exhaust emission standards of bin 5 or lower from Tables S04–10 and 11 of this section for HLDTs of model years 2004, 2005 and 2006; the interim non-Tier 2 FTP exhaust standards from Tables S04–10 and 11 and the 0.20 g/mi fleet average NO $_{\rm X}$  standard for the 2007 and 2008 model year; and the Tier 2 FTP exhaust standards, evaporative standards, and the 0.07 g/mi fleet average NO $_{\rm X}$  standard for the 2009 and later model years.

(6)(i) A manufacturer may elect an alternate phase-in schedule that results in 100% phase-in for LDV/LLDTs by 2007. Alternate phase-in schedules must produce a sum of at least 250% when the percentages of LDV/LLDTs certified to Tier 2 requirements for each model year from 2001 through 2007 are summed. As an example, a 10/25/50/65/100 percent phase-in that began in 2003 would have a sum of 250 percent would be acceptable. However, a 10/25/40/70/100 percent phase-in that began the same year would have a sum of 245 percent and would not be acceptable.

(ii) A manufacturer electing this option for LDV/LLDTs may calculate its compliance with the evaporative standards in paragraph (e)(1) of this section separately from its compliance with Tier 2 exhaust standards, provided that the phase-in schedules for each separately produce a sum of at least 250 percent when calculated as described in paragraph (k)(6)(i) of this section. A vehicle counted towards compliance with any phase-in requirement for the Tier 2 exhaust standards or the evaporative standards in paragraph (e)(1) of this section, must comply with all applicable Tier 2 exhaust standards or all evaporative standards, as applicable, described in this section.

(iii) In addition to the requirements of paragraph (k)(6)(i) and (ii) of this section, a manufacturer of LDV/LLDTs electing to use an alternate phase-in schedule for compliance with the Tier 2 exhaust standards or the evaporative standards in paragraph (e)(1) of this section must ensure that the sum of the percentages of vehicles from model years 2001 through 2004, meeting such exhaust or evaporative standards, as applicable, is at least 25%.

(iv) A manufacturer may elect an alternate phase-in schedule that results in 100% phase-in for HLDTs by 2009. The requirements of paragraph (k)(6)(i) through (k)(6)(iii) of this section apply, except that for HLDTs, the calculation described in paragraph (k)(6)(i) of this section may cover model years 2001 through 2009 and must produce a sum of at least 150%.

(7)(i) Sales percentages for the purpose of determining compliance with the phase-in of the Tier 2 requirements and the phase-in of the evaporative standards in paragraph (e)(1) of this section, must be based upon projected U.S. sales of LDV/LLDTs and HLDTs of the applicable model year by the manufacturer to the point of first sale. Such sales percentages must be rounded to the nearest one tenth of a percent, and must not include vehicles and trucks projected to be sold to points of first sale in California or a state that has adopted California requirements for that model year as permitted under section 177 of the Act.

(ii) Alternatively, the manufacturer may petition the Administrator to allow actual volume produced for U.S. sales to be used in lieu of projected U.S. sales for purposes of determining compliance with the phase-in percentage requirements under this section. The manufacturer must submit its petition within 30 days of the end of the model year to the Vehicle Programs and Compliance Division. For EPA to approve the use of actual volume produced for U.S. sales, the manufacturer must establish to the satisfaction of the Administrator, that actual production volume is functionally equivalent to actual sales volume of LDV/LLDTs and HLDTs sold

in states other than California and states that have adopted California standards.

(iii) Manufacturers must submit information showing compliance with all phase-in requirements of this section with its Part I application as required by § 86.1844(d)(13).

(l) FTP exhaust standards for interim non-Tier 2 LDV/LLDTs and HLDTs. (1) FTP exhaust emission standards for interim non-Tier 2 LDV/LLDTs. (i) LDV/ LLDTs that are not certified to meet Tier 2 FTP exhaust emission requirements during the Tier 2 phase-in period (model years 2004-2006) must comply with the full useful life FTP exhaust emission standards listed in Table S04-8 of this section and, the corresponding intermediate useful life standards, if any, in Table S04-9 of this section. Manufacturers may choose the bin of full useful life standards to which they certify a test group of vehicles, subject to the requirements in paragraph (l)(3)(i) of this section. In addition to the bins shown in Tables S04-8 and S04-9 of this section, manufacturers may also use the Tier 2 bins shown in Tables S04-1 and S04-2 of this section. Manufacturers may include LDV/LLDTs in the interim program that are not used to meet the Tier 2 corporate average NO<sub>X</sub> standard or the phase-in percentage requirements in the Tier 2 program or to generate Tier 2 NO<sub>X</sub> credits. More simply, a manufacturer may use the Tier 2 bins for interim non-Tier 2 vehicles; but, in a given model year, an individual vehicle may not be included in both the Tier 2 program and an interim program. Tables S04-8 and S04-9 follow:

TABLE S04-8.—FULL USEFUL LIFE INTERIM EXHAUST MASS EMISSION STANDARDS FOR LDV/LLDTS [Grams per mile]

EPA Bin No.	NMOG	СО	$NO_X$	НСНО	PM
5	0.156	4.2	0.60	0.018	0.06
	0.090	4.2	0.30	0.018	0.06
	0.055	2.1	0.30	0.011	0.04
	0.090	4.2	0.07	0.018	0.01
	0.000	0.0	0.00	0.000	0.0

TABLE S04-9.—INTERMEDIATE USEFUL LIFE INTERIM EXHAUST MASS EMISSION STANDARDS FOR LDV/LLDTS [Grams per mile]

EPA Bin No.	NMOG	СО	$NO_X$	НСНО	PM
5	0.125 0.075 0.040 0.075	3.4 3.4 1.7 3.4	0.40 0.20 0.20 0.05	0.015 0.015 0.008 0.015	

(ii) Manufacturers must select a set of standards from the same bin in Table S04–8 of this section and the corresponding bin in Table S04–9, if any, for a given test group of flexible-fueled, dual fuel or multi-fuel LDV/LLDTs, when operated

on the alcohol or gaseous fuel they are designed to use. When these flexible-fueled, dual fuel or multi fuel LDV/ Ts are certified to operate on gasoline, the manufacturer may choose to comply with the next numerically higher NMOG standard (if there is one) above the bin which contains the standards selected for certification on the gaseous or alcohol fuel.

- (2) FTP exhaust emission standards for interim non-Tier 2 HLDTs. (i) HLDTs of model years 2004–2008 that are not certified to meet the Tier 2 FTP exhaust standards in paragraph (c) of this section must comply with the interim non-Tier 2 FTP exhaust emission standards in Tables S04–10 and S04–11 of this section.
- (ii) HLDTs of model years 2004–2008 that are not certified to meet the Tier 2 FTP exhaust standards in paragraph (c) of this section must also comply with the fleet average  $NO_{\rm X}$  standard
- described in paragraph (l)(3)(ii) of this section subject to the phase-in schedule in paragraph (l)(2)(iv) of this section, i.e. 25 percent of the HLDTs must meet the fleet average standard of 0.20 g/mi in 2004, 50 percent in 2005, and so on.
- (iii) Manufacturers may choose the bin of full useful life standards to which they certify a test group of HLDTs, subject to the requirements in paragraph (l)(3)(ii) of this section. In addition to the bins shown in Tables S04–10 and S04–11 of this section, manufacturers may also use the Tier 2 bins shown in

Tables S04–1 and S04–2 of this section. Therefore, manufacturers may include HLDTs in the interim program that are not used to meet the Tier 2 corporate average  $NO_X$  standard or the phase-in percentage requirements in the Tier 2 program or to generate Tier 2  $NO_X$  credits. More simply, a manufacturer may use the Tier 2 bins for interim non-Tier 2 vehicles; but, in a given model year, an individual vehicle may not be included in both the Tier 2 program and an interim program. Tables S04–10 and S04–11 follow:

TABLE S04-10.—FULL USEFUL LIFE INTERIM EXHAUST MASS EMISSION STANDARDS FOR HLDTS [Grams/mile]

EPA Bin No.	NMOG	СО	$NO_X$	НСНО	PM
5	0.230	4.2	0.60	0.018	0.06
	0.180	4.2	0.30	0.018	0.06
	0.156	4.2	0.20	0.018	0.02
	0.090	4.2	0.07	0.018	0.01
	0.000	0.0	0.00	0.000	0.0

TABLE S04-11.—INTERMEDIATE USEFUL LIFE INTERIM EXHAUST MASS EMISSION STANDARDS FOR HLDTS [Grams per mile]

EPA Bin No.	NMOG CO NO <sub>X</sub> HC		НСНО	PM	
5	0.160 0.140 0.125 0.075	3.4 3.4 3.4 3.4	0.40 0.20 0.14 0.05	0.015 0.015 0.015 0.015	

(iv) Phase-in schedule for interim non-Tier 2 HLDT standards. Table S04–12 of this section specifies the minimum percentage of the manufacturer's non-Tier 2 HLDT U.S. sales, by model year, that must comply with the fleet average NO<sub>X</sub> standard described in paragraph (l)(3(ii) of this section. Table S04–12 follows:

Table S04–12.—Phase-in Percentages for Interim Non-Tier 2 Fleet Average  $NO_{\rm X}$  Standard for HLDTs

Model year	Percentage of non-tier 2 HLDTs that must meet in- terim non-tier 2 fleet average NO <sub>X</sub> standard
2004	25 50 75 100

(v) A manufacturer may elect an alternate phase-in schedule, beginning as early as the 2001 model year, that results in 100% compliance by 2007 with the fleet average  $NO_X$  standard for HLDTs described in paragraph (1)(3)(ii) of this section. The requirements of paragraph (k)(6)(i) of this section apply to the selection of an alternate phase-in schedule.

(vi) Manufacturers must select a set of standards from the same bin in Table S04–10 of this section and the corresponding bin in Table S04-11, if any (or Tables S04-1 and S04-2 of this section), for a given test group of flexible-fueled, dual fuel or multi-fuel HLDTs, when operated on the alcohol or gaseous fuel they are designed to use. When these flexible-fueled, dual fuel or multi fuel HLDTs are certified to operate on gasoline, the manufacturer may choose to comply with the next numerically higher NMOG standard (if there is one) above the bin which contains the standards selected for

certification on the gaseous or alcohol fuel.

- (3) Fleet average NO<sub>X</sub> standards for interim non-Tier 2 LDV/Ts. (i) Manufacturers must comply with a fleet average full useful life NO<sub>X</sub> standard for their interim non-Tier 2 LDV/LLDTs, on an annual basis, of 0.30 grams per mile.
- (ii) Manufacturers must comply with a fleet average full useful life  $NO_X$  standard for their interim non-Tier 2 HLDTs, excluding those HLDTs not yet covered by the phase-in requirement described in paragraph (l)(2)(ii) of this section, on an annual basis, of 0.20 grams per mile.
- (iii) Manufacturers must determine their compliance with these interim fleet average  $NO_X$  standards for each model year by separately computing the sales weighted average  $NO_X$  level of all interim non-Tier 2 LDV/LLDTs and all interim non-Tier 2 HLDTs (excluding those not yet phased in as described in paragraph (l)(2)(ii) of this section), using the methodology in § 86.1860.

- (iv) Manufacturers may generate, bank, average, trade and use interim non-Tier 2  $NO_X$  credits based on their  $NO_X$  fleet average as determined under paragraph (l)(3)(iii) of this section. Unless waived or modified by the Administrator, the provisions of § 86.1861 apply to the generation, banking, averaging, trading and use of credits generated by interim non-Tier 2 LDV/Ts.  $NO_X$  credits generated by interim non-Tier 2 LDV/Ts are not subject to any discount.
- (m) NMOĞ standards for diesel, flexible fueled and dual-fueled LDV/Ts. (1) For diesel fueled LDV/Ts, the term "NMOG" in both the Tier 2 and interim non-Tier 2 standards means non-methane hydrocarbons.
- (2) Flexible-fueled and dual-fuel Tier 2 LDV/Ts and interim non-Tier 2 LDV/Ts must be certified to NMOG exhaust emission standards both for operation on gasoline and on any alternate fuel they are designed to use.
- (n) Hybrid electric vehicle (HEV) and Zero Emission Vehicle (ZEV) requirements. For FTP and SFTP exhaust emissions, and unless otherwise approved by the Administrator, manufacturers must measure emissions

from all HEVs and ZEVs according to the requirements and test procedures found in the document entitled California Zero-Emission and Hybrid **Electric Vehicle Exhaust Emission** Standards and Test Procedures for 2003 and Subsequent Model Passenger Cars, Light-duty Trucks and Medium-duty Vehicles. This document is incorporated by reference (see § 86.1) . Requirements and procedures in this document that are relevant only to complying with the California ZEV mandate, computing partial and full ZEV allowance credits, or generating and using ZEV credits, are not relevant to the federal program and may be disregarded. Discussion in that document relevant to fleet average NMOG standards and NMOG credits may also be disregarded.

- (o) NMOG measurement. (1) Manufacturers must measure NMOG emissions in accordance with Part G of the California Non-Methane Organic Gas Test Procedures. These requirements are incorporated by reference (see § 86.1).
- (2) Manufacturers must not apply reactivity adjustment factors (RAFs) to NMOG measurements. See § 86.1841.
- (p) *In-use standards for Tier 2 LDV/ Ts.* (1) Table S04–13 of this section

- contains in-use emission standards applicable only to Tier 2 LDV/Ts certified to the bins shown in the table. These standards apply to in-use testing performed by the manufacturer pursuant to regulations at §§ 1845–01, 1845–04 and 1846–01 and to in-use testing performed by EPA. These standards do not apply to certification or Selective Enforcement Auditing.
- (2) These standards apply only to Tier 2 LDV/LLDTs produced up through the 2008 model year, and Tier 2 HLDTs produced up through the 2010 model year. These standards are subject to other limitations described in paragraph (p)(3) of this section.
- (3) For the first model year and also for the next model year after that, in which a test group of Tier 2 vehicles is certified to a bin of standards to which it has not previously been certified, the standards in Table S04–13 of this section apply for purposes of in-use testing only. The standards apply equally to Tier 2 LDV/Ts produced before, during and after the applicable Tier 2 phase-in period, subject to the model year limitation in paragraph (p)(2) of this section. Table S04–13 follows:

TABLE S04–13.—IN-USE COMPLIANCE STANDARDS FOR TIER 2 VEHICLES (G/MI)

[Certification standards shown for reference purposes]

Bin No.	Durability pe- riod (miles)	$NO_{\mathrm{X}}$ in-use	NO <sub>x</sub> certifi- cation	NMOG in-use	NMOG certifi- cation
5,4	50,000	0.07	0.05	n/a	0.075, 0.04
5.4	120,000	0.10	0.07	n/a	0.090, 0.055
3	120,000	0.06	0.04	n/a	0.070
	120,000	0.03	0.02	0.02	0.010

22. Section 86.1812–01 is amended by adding the following sentence to the end of the introductory text to read as follows:

## § 86.1812–01 Emission standards for light-duty trucks 1.

- \* \* \* This section does not apply to 2004 and later model year vehicles, except as specifically referenced by § 86.1811–04.
- 23. Section 86.1813–01 is amended by adding the following sentence to the end of the introductory text to read as follows:

## § 86.1813–01 Emission standards for light-duty trucks 2.

\* \* This section does not apply to 2004 and later model year vehicles, except as specifically referenced by § 86.1811–04.

\* \* \* \* \*

24. Section 86.1814–02 is amended by adding the following sentence to the end of the introductory text to read as follows:

## § 86.1814–02 Emission standards for light-duty trucks 3.

\* \* \* This section does not apply to 2004 and later model year vehicles, except as specifically referenced by § 86.1811–04.

### §86.1814-04 [Removed]

- 25. Section 86.1814-04 is removed.
- 26. Section 86.1815–02 is amended by adding the following sentence to the end of the introductory text to read as follows:

### § 86.1815–02 Emission standards for lightduty trucks 4.

\* \* This section does not apply to 2004 and later model year vehicles,

except as specifically referenced by § 86.1811–04.

\* \* \* \* \*

### §86.1815-04 [Removed]

- 27. Section 86.1815-04 is removed.
- 28. Section 86.1824–01 is amended by adding paragraphs (a)(2)(iii) and (a)(2)(iv) to read as follows:

## § 86.1824–01 Durability demonstration procedures for evaporative emissions.

\* \* (a) \* \* \*

(2) \* \* \*

(iii) For gasoline fueled LDV/Ts certified to meet the evaporative emission standards set forth in § 86.1811–04(e)(1), any service accumulation method for evaporative emissions must employ gasoline fuel for the entire service accumulation period which contains ethanol in, at least, the highest concentration permissible in gasoline under federal law and that is

commercially available in any state in the United States. Unless otherwise approved by the Administrator, the manufacturer must determine the appropriate ethanol concentration by selecting the highest legal concentration commercially available during the calendar year before the one in which the manufacturer begins its service accumulation. The manufacturer must also provide information acceptable to the Administrator to indicate that the service accumulation method is of sufficient design, duration and severity to stabilize the permeability of all nonmetallic fuel and evaporative system components to the service accumulation fuel constituents.

(iv) For flexible-fueled, dual-fueled, multi-fueled, ethanol-fueled and methanol-fueled LDV/Ts certified to meet the evaporative emission standards set forth in § 86.1811–04(e)(1), any service accumulation method must employ fuel for the entire service accumulation period which the vehicle is designed to use and which the Administrator determines will have the greatest impact upon the permeability of evaporative and fuel system components. The manufacturer must also provide information acceptable to the Administrator to indicate that the service accumulation method is of sufficient design, duration and severity to stabilize the permeability of all nonmetallic fuel and evaporative system components to service accumulation fuel constituents.

29. Section 86.1827-01 is amended by adding paragraph (e) to read as follows:

### § 86.1827–01 Test group determination.

(e) Unless otherwise approved by the Administrator, a manufacturer of hybrid electric vehicles must create separate test groups based on both the type of battery technology employed by the HEV and upon features most related to their exhaust emission characteristics.

30. Section 86.1829–01 is amended by adding paragraph (d) to read as follows:

### §86.1829-01 Durability and emission testing requirements; waivers.

(d)(1) Beginning in the 2004 model year, the exhaust emissions must be measured from all exhaust emission data vehicles tested in accordance with the federal Highway Fuel Economy Test (HWFET; 40 CFR part 600, subpart B). The oxides of nitrogen emissions measured during such tests must be multiplied by the oxides of nitrogen deterioration factor computed in accordance with §86.1824-01 and

subsequent model year provisions, and then rounded and compared with the applicable emission standard in § 86.1811–04. All data obtained from the testing required under this paragraph (d) must be reported in accordance with the procedures for reporting other exhaust emission data required under this subpart.

(2) In the event that one or more emission data vehicles fail the applicable HWFET standard in §86.1811–04, the manufacturer may submit to the Administrator engineering data or other evidence showing that the system is capable of complying with the standard. If the Administrator finds, on the basis of an engineering evaluation, that the system can comply with the HWFET standard, he or she may accept the information supplied by the manufacturer in lieu of the test data.

31. Section 86.1837-01 is amended by designating the existing text as paragraph (a) and by adding paragraph (b) to read as follows:

#### §86.1837-01 Rounding of emission measurements.

(b) Fleet average NO<sub>X</sub> value calculations, where applicable, must be rounded to one more decimal place than that of the applicable fleet average standard before comparing with the applicable fleet average NO<sub>X</sub> standard to determine credit generation or credit needs.

32. Section 86.1838-01 is amended by revising paragraph (c)(2)(iii) to read as follows:

### §86.1838-01 Small volume manufacturer certification procedures.

\* (c) \* \* \*

(2) \* \* \*

(iii) The provisions of §86.1845-01(c)(2) and § 86.1845–04(c)(2) that require one vehicle of each test group during high mileage in-use verification testing to have a minimum odometer mileage of 75 percent of the full useful life mileage for Tier 1 and NLEV LDV/ Ts, or 90,000 (or 105,000) miles for Tier 2 and interim non-Tier 2 LDV/Ts, do not apply.

33. Section 86.1840-01 is amended by adding paragraph (c) to read as follows:

#### §86.1840-01 Special test procedures. \* \*

(c) Manufacturers of LDV/Ts equipped with periodically regenerating trap oxidizer systems must propose a procedure for testing and certifying such LDV/Ts including SFTP testing for the review and approval of the

Administrator. The manufacturer must submit its proposal before it begins any service accumulation or emission testing. The manufacturer must provide with its submittal, sufficient documentation and data for the Administrator to fully evaluate the operation of the trap oxidizer system and the proposed certification and testing procedure.

34. Section 86.1841–01 is amended by revising paragraph (a)(1)(iii) and adding paragraph (e) to read as follows:

### §86.1841-01 Compliance with emission standards for the purpose of certification.

(a) \* \* \*

(1) \* \* \*

(iii) For the SFTP composite standard of NMHC+NOx, the measured results of NMHC and NO<sub>X</sub> must each be adjusted by their corresponding deterioration factors before the composite NMHC+NO<sub>X</sub> certification level is calculated. Where the applicable FTP exhaust hydrocarbon emission standard is an NMOG standard, the applicable NMOG deterioration factor must be used in place of the NMHC deterioration factor, unless otherwise approved by the Administrator.

(e) Unless otherwise approved by the Administrator, manufacturers must not use Reactivity Adjustment Factors (RAFs) in their calculation of the certification levels of any pollutant, regardless of the fuel used in the test vehicle.

35. Section 86.1844-01 is amended by adding a new paragraph (d)(15), a new paragraph (e)(6) and a new paragraph (i) to read as follows:

### § 86.1844-01 Information requirements: Application for certification and submittal of information upon request.

(d) \* \* \*

- (15) For HEVs, unless otherwise approved by the Administrator, the information required by the "California Zero-Emission and Hybrid Electric Vehicle Standards and Test Procedures for 2003 and Subsequent Model Year Passenger Cars, Light-Duty Trucks and Medium-duty Vehicles" must be supplied. These procedures are incorporated by reference (see § 86.1).
- (e) \* (6) The NMOG/NMHC and formaldehyde to NMHC ratios established according to § 86.1845-04.
- (i) For exhaust emission testing for Tier 2 and interim non-Tier 2 LDV/Ts, if approved by the Administrator in advance, manufacturers may submit exhaust emission test data generated

under California test procedures to comply with any certification and inuse testing requirements under this subpart. The Administrator may require supporting information to establish that differences between California and Federal exhaust testing procedures and fuels will not produce significant differences in emission results. The Administrator may require that in-use testing be performed using Federal test fuels as specified in § 86.113–04(a)(1).

36. Section 86.1845–04 is amended by redesignating the text of paragraph (a) after the paragraph heading as paragraph (a)(1), adding paragraph (a)(2), revising paragraph (c)(2) and adding paragraph (f) to read as follows:

## § 86.1845–04 Manufacturer in-use verification testing requirements.

(a) General requirements. (1) \* \* \*

(2) Unless otherwise approved by the Administrator, no emission measurements made under the requirements of this section may be adjusted by Reactivity Adjustment Factors (RAFs).

\* \* \* \* \* \*

(2) Vehicle mileage:

(i) All test vehicles must have a minimum odometer mileage of 50,000 miles. At least one vehicle of each test group must have a minimum odometer mileage of 75 percent of the full useful life mileage. See § 86.1838–01(c)(2) for small volume manufacturer mileage requirements; or

(ii) For engine families certified for a useful life of 150,000 miles, at least one vehicle must have a minimum odometer mileage of 105,000 miles. See § 86.1838–01(c)(2) for small volume manufacturer mileage requirements.

\* \* \* \* \* \*

(f)(1) As an alternative to measuring the NMOG content, the Administrator may approve, upon submission of supporting data by a manufacturer, the use of NMOG to NMHC ratios. To request the use of NMOG to NMHC ratios, a manufacturer must establish during certification testing the ratio of measured NMOG exhaust emissions to measured NMHC exhaust emissions for each emission data vehicle for the applicable test group. The results must be submitted to the Administrator in the Part II application for certification. A manufacturer may conduct in-use testing on the test group by measuring NMHC exhaust emissions rather than NMOG exhaust emissions. After approval by the Administrator, the measured NMHC exhaust emissions must be multiplied by the NMOG to NMHC ratio submitted in the application for certification for the test

group to determine the equivalent NMOG exhaust emission values for the test vehicle. The equivalent NMOG exhaust emission value must be used in place of the measured NMOG exhaust emission value in determining the exhaust NMOG results. The equivalent NMOG exhaust emission values must be compared to the NMOG exhaust emission standard from the emission bin to which the test group was certified.

(2) For flexible-fueled LDV/Ts certified to NMOG standards, the manufacturer may request from the Administrator the use of a methanol (M85) or ethanol (E85) NMOG exhaust emission to gasoline NMHC exhaust emission ratio which must be established during certification for each emission data vehicle for the applicable test group. The results must be submitted to the Administrator in the Part II application for certification. After approval by the Administrator, the measured gasoline NMHC exhaust emissions must be multiplied by the M85 or E85 NMOG to gasoline NMHC ratio submitted in the application for certification for the test group to determine the equivalent NMOG exhaust emission values for the test vehicle. The equivalent NMOG exhaust emission value must be used in place of the measured NMOG exhaust emission value in determining the exhaust NMOG results. The equivalent NMOG exhaust emission values must be compared to the NMOG exhaust emission standard from the vehicle emission standard bin to which the test group was certified.

(3) As an alternative to measuring the HCHO content, the Administrator may approve, upon submission of supporting data by a manufacturer, the use of HCHO to NMHC ratios. To request the use of HCHO to NMHC ratios, the manufacturer must establish during certification testing the ratio of measured HCHO exhaust emissions to measured NMHC exhaust emissions for each emission data vehicle for the applicable test group. The results must be submitted to the Administrator with the Part II application for certification. Following approval of the application for certification, the manufacturer may conduct in-use testing on the test group by measuring NMHC exhaust emissions rather than HCHO exhaust emissions. The measured NMHC exhaust emissions must be multiplied by the HCHO to NMHC ratio submitted in the application for certification for the test group to determine the equivalent HCHO exhaust emission values for the test vehicle. The equivalent HCHO exhaust emission values must be compared to the HCHO exhaust

emission standard applicable to the test group.

37. Section 86.1846–01 is amended by redesignating paragraph (a) as paragraph (a)(1) and adding paragraph (a)(2) to read as follows:

## § 86.1846–01 Manufacturer in-use confirmatory testing requirements.

(a)(1) \* \* \*

(2) Except for vehicles certified under the NLEV provisions of subpart R of this part or unless otherwise approved by the Administrator, no emission measurements made under the requirements of this section may be adjusted by Reactivity Adjustment Factors (RAFs).

38. Section 86.1848–01 is amended by adding paragraph (c)(7) to read as follows:

### §86.1848-01 Certification.

\* \* \* \* \*

(c) \* \* \*

(7) For Tier 2 LDV/Ts and interim non-Tier 2 LDV/Ts, all certificates of conformity issued are conditional upon compliance with all provisions of §§ 86.1811–04, 86.1860–04, 86.1861–04 and 86.1862–04 both during and after model year production.

(i) Failure to meet the fleet average  $NO_X$  requirements of 0.07g/mi, 0.30 g/mi or 0.20 g/mi, as applicable, will be considered to be a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the LDV/Ts sold in violation of the fleet average  $NO_X$  standard will not be covered by the certificate(s).

(ii) Failure to comply fully with the prohibition against selling credits that it has not generated or that are not available, as specified in § 86.1861–04, will be considered to be a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the LDV/Ts sold in violation of this prohibition will not be covered by the certificate(s).

(iii) Failure to comply fully with the phase-in requirements of § 86.1811–04, will be considered to be a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the LDV/Ts sold which do not comply with Tier 2 or interim non-Tier 2 requirements, up to the number needed to comply, will not be covered by the certificate(s).

(iv) For paragraphs (c)(7) (i) through (iii) of this section:

(A) The manufacturer must bear the burden of establishing to the satisfaction of the Administrator that the terms and conditions upon which the certificate(s) was (were) issued were satisfied.

(B) For recall and warranty purposes, LDV/Ts not covered by a certificate of conformity will continue to be held to the standards stated or referenced in the certificate that otherwise would have applied to the LDV/Ts

\* \* \* \* \*

### §§ 86.1854 through 86.1859 [Reserved]

39. Sections 86.1854 through 86.1859 are added and reserved.

40. Section 86.1860–04 is added to read as follows:

## § 86.1860–04 How to comply with the Tier 2 and interim non-Tier 2 fleet average $NO_{\rm X}$ standards.

(a) The fleet average standards referred to in this section are the corporate fleet average standards for FTP exhaust NO<sub>x</sub> emissions set forth in: § 86.1811–04(d) for Tier 2 LDV/Ts (0.07 g/mi); § 86.1811–04(l)(3) for interim non-Tier 2 LDV/LLDTs (0.30 g/mi); and, § 86.1811–04(l)(3) for interim non-Tier 2 HLDTs (0.20 g/mi). Unless otherwise indicated in this section, the provisions of this section apply to all three corporate fleet average standards, except that the interim non-Tier 2 fleet average NO<sub>X</sub> standards do not apply to a manufacturer whose U.S. LDV/T sales are 100% Tier 2 LDV/Ts.

(b) Each manufacturer must comply with the applicable fleet average  $NO_X$  standard, or standards, on a sales weighted average basis, at the end of each model year, using the procedure described in this section.

(c)(1)(i) Each manufacturer must separately compute the sales weighted averages of the individual NO<sub>X</sub> emission standards to which it certified all its Tier 2 LDV/Ts, interim non-Tier 2 LDV/LLDTs, and interim non-Tier 2 HLDTs of a given model year as described in § 86.1804(l)(2). The averages must be rounded to the same number of decimal places as those of the standard plus one additional decimal place.

(ii) For model years up to and including 2008, manufacturers must compute separate NO<sub>x</sub> fleet averages for Tier 2 LDV/LLDTs and Tier 2 HLDTs.

(2)(i) For model years up to and including 2008, if a manufacturer certifies its entire U.S. sales of Tier 2 or interim non-Tier 2 LDV/LLDTs or interim non-Tier 2 HLDTs, to full useful life bins having  $NO_X$  standards at or below the applicable fleet average  $NO_X$  standard, that manufacturer may elect not to compute a fleet average  $NO_X$  level for that category of vehicles. A manufacturer making such an election must not generate  $NO_X$  credits for that category of vehicles for that model year.

(ii) For model years after 2008, if a manufacturer certifies its entire U.S. sales of Tier 2 vehicles to full useful life bins having  $NO_X$  standards at or below 0.07 gpm, that manufacturer may elect not to compute a fleet average  $NO_X$  level for its Tier 2 vehicles. A manufacturer making such an election must not generate  $NO_X$  credits for that model year.

(d) The sales weighted  $NO_X$  fleet averages determined pursuant to paragraph (c) of this section must be compared with the applicable fleet average standard; 0.07 g/mi for  $NO_X$  for Tier 2 LDV/Ts, 0.30 g/mi for  $NO_X$  for interim non-Tier 2 LDV/LLDTs, and 0.20 g/mi for  $NO_X$  for interim non-Tier 2 HLDTs. Each manufacturer must comply on an annual basis with the fleet average standards by:

(1) showing that its sales weighted average NO<sub>X</sub> emissions of its LDV/LLDTs, HLDTs or LDV/Ts, as applicable, are at or below the applicable fleet average standard; or

(2) if the sales weighted average is not at or below the applicable fleet average standard, obtaining and applying sufficient Tier 2  $NO_X$  credits, interim non-Tier 2 LDV/LLDT  $NO_X$  credits or interim non-Tier 2 HLDT  $NO_X$  credits as permitted under § 86.1861–04 of this part. Manufacturers may not use NMOG credits generated under the NLEV program in subpart R of this part to meet any Tier 2 or interim non-Tier 2  $NO_X$  fleet average standard. Tier 2  $NO_X$  credits may not be used to meet any fleet average interim non-Tier 2  $NO_X$ 

standard. Interim non-Tier 2  $NO_X$  credits may not be used to meet the Tier 2 corporate average  $NO_X$  standard. Interim non-Tier 2  $NO_X$  credits from HLDTs may not be used to meet the fleet average  $NO_X$  standard for interim non-Tier 2 LDV/LLDTs, and interim non-Tier 2 credits from LDV/LLDTs may not be used to meet the fleet average  $NO_X$  standard for interim non-Tier 2 HLDTs.

(e) Manufacturers that can not meet the requirements of paragraph (d) of this section, may carry forward a credit deficit for one model year, but may not carry a deficit forward in two consecutive model years, except that manufacturers may carry forward a credit deficit for interim non-Tier 2 LDV/LLDTs or interim non-Tier 2 HLDTs for more than one year but must cover the LDV/LLDT credit deficit with interim non-Tier 2 LDV/LLDT NO<sub>X</sub> credits by the end of model year 2006, and any interim non-Tier 2 HLDT deficit with interim non-Tier 2 HLDT NO<sub>x</sub> credits by the end of model year 2008. No deficit from interim non-Tier 2 LDV/LLDTs of any model year may be carried forward into the 2007 model year. No deficit from interim non-Tier 2 HLDTs may be carried forward into the 2009 model year.

- (f) Computing fleet average  $NO_X$  emissions. (1) Manufacturers must separately compute these fleet  $NO_X$  averages using the equation contained in paragraph (f)(2) of this section:
- (i) Their Tier 2 LDV/LLDT and Tier 2 HLDT fleet average  $NO_{\rm X}$  emissions for each model year through 2008;
- (ii) Their Tier 2 LDV/T fleet average  $NO_{\rm X}$  emissions for each model year after 2008:
- (iii) Their interim non-Tier 2 LDV/LDT fleet average NO<sub>x</sub> emissions for each model year through 2006; and
- (iv) Their interim non-Tier 2 HLDT fleet average  $NO_{\rm X}$  emissions for each model year through 2008.
- (2) The equation for computing fleet average  $NO_X$  emissions is as follows:

 $\sum$  (N×NO<sub>X</sub> emission standard)

Total number of LDV/Ts sold including HEVs and ZEVs

### Where:

N = The number of LDV/Ts sold in the applicable category that were certified for each corresponding  $NO_{\rm X}$  emission bin. N must be based on LDV/Ts counted to the point of first sale.

Emission standard = The individual full useful life NO<sub>X</sub> emission standard

for each bin for which the manufacturer had sales.

(3) The results of the calculation in paragraph (f)(2) of this section must be rounded to one more decimal place than the number of decimal places of the fleet average  $NO_X$  standard.

(4) When approved in advance by the Administrator, the numerator in the equation in paragraph (f)(2) of this section may be adjusted downward by the product of the number of HEVs from each  $NO_X$  emission bin times a HEV  $NO_X$  contribution factor determined through mathematical estimation of the reduction in  $NO_X$  emissions over the

test procedure used to certify the HEVs. The reduction in NO<sub>X</sub> emissions must be determined using good engineering judgement and reflect the relation in actual full useful life NO<sub>X</sub> emissions to the full useful life NOx standards for the certification bin applicable to the LDV/ Ts. The Administrator may require that calculation of the HEV NO<sub>X</sub> contribution factor include vehicle parameters such as vehicle weight, portion of time during the test procedure that the HEV operates with zero exhaust emissions, zero emission range, NO<sub>X</sub> emissions from fuel-fired heaters and NOx emissions from electricity production and storage.

(g) Additional credits for LDV/Ts certified to 150,000 mile useful lives. A manufacturer may certify any Tier 2 test group to an optional useful life of 150,000 miles. For any test group certified to the optional 150,000 mile useful life, the manufacturer, when calculating its fleet average by the procedure in paragraph (f) of this section, may substitute an adjusted NO<sub>X</sub> standard for the applicable NO<sub>X</sub> standards from the full useful life certification bin. The adjusted standard must be equal to the applicable full useful life NOx standard multiplied by 0.85 and rounded to the same number of decimal places as the applicable full useful life  $\bar{N}O_X$  standard.

41. Section 86.1861–04 is added to read as follows:

## $\S\,86.1861-04~$ How do the Tier 2 and interim non-Tier 2 $NO_{\rm X}$ averaging, banking and trading programs work?

(a) General provisions for Tier 2 credits and debits. (1) A manufacturer whose Tier 2 fleet average NO<sub>X</sub> emissions exceeds the 0.07 g/mile standard must complete the calculation at paragraph (b) of this section to determine the size of its NOx credit deficit. A manufacturer whose Tier 2 fleet average NO<sub>X</sub> emissions is less than or equal to the 0.07 g/mile standard must complete the calculation in paragraph (b) of this section if it desires to generate NO<sub>X</sub> credits. In either case, the number of credits or debits determined in the calculation at paragraph (b) of this section must be rounded to the nearest whole number.

(2) Credits generated according to the calculation in paragraph (b)(1) of this section may be banked for future use or traded to another manufacturer.

(3) NO<sub>X</sub> credits are not subject to any discount or expiration date.

(4) If a manufacturer calculates that it has negative credits (debits or a credit deficit) for a given model year, it must obtain sufficient credits from LDV/Ts produced by itself or another

manufacturer in a model year no later than the one following the model year for which it calculated the credit deficit. (*Example:* if a manufacturer calculates that it has a  $NO_X$  credit deficit for the 2008 model year, it must obtain sufficient  $NO_X$  credits to offset that deficit from its own production or that of other manufacturers' 2009 or earlier model year LDV/Ts.)

(5) A manufacturer must not have a  $NO_X$  credit deficit for any two consecutive model years. (*Example:* A manufacturer that has a  $NO_X$  credit deficit at the end of the 2008 model year from its 2008 production that it can not offset with  $NO_X$  credits from 2008 or earlier model year LDV/Ts as allowed under this subpart, must not also have a  $NO_X$  credit deficit at the end of the 2009 model year.)

(6) Manufacturers may not use NO<sub>X</sub> credits generated in the Tier 2 program to comply with the NLEV requirements of subpart R of this part. Manufacturers may not use NMOG credits generated by vehicles certified to the NLEV requirements of subpart R of this part to comply with any NO<sub>X</sub> requirements of this subpart. Manufacturers may not use NO<sub>X</sub> credits generated by interim non-Tier 2 LDV/Ts to comply with the corporate average NO<sub>X</sub> standard for Tier 2 LDV/Ts. Manufacturers may not use NO<sub>X</sub> credits generated by Tier 2 LDV/Ts to comply with any corporate average NO<sub>X</sub> standard for interim non-Tier 2 LDV/Ts. Manufacturers may not use NO<sub>X</sub> credits generated by interim non-Tier 2 LDV/LLDTs to comply with the corporate average NO<sub>X</sub> standard for interim non-Tier 2 HLDTs. Manufacturers may not use NO<sub>X</sub> credits

LDV/LLDTs.

(7) Manufacturers may bank Tier 2
NO<sub>X</sub> credits for later use to meet the
Tier 2 corporate average NO<sub>X</sub> standard
or trade them to another manufacturer.
Credits are earned on the last day of the
model year. Before trading or carrying
over credits to the next model year, a
manufacturer must apply available
credits to offset any credit deficit, where
the deadline to offset that credit deficit
has not yet passed.

generated by interim non-Tier 2 HLDTs

to comply with the corporate average

NO<sub>X</sub> standard for interim non-Tier 2

(8) There are no property rights associated with  $NO_X$  credits generated under this subpart. Credits are a limited authorization to emit the designated amount of emissions. Nothing in this part or any other provision of law should be construed to limit EPA's authority to terminate or limit this authorization through a rulemaking.

(b) Calculating Tier 2 credits and debits. (1) Manufacturers that achieve

fleet average  $NO_{\rm X}$  values from the calculation in § 86.1860–04(f), lower than the applicable fleet average  $NO_{\rm X}$  standard, may generate credits for a given model year, in units of vehicle-g/mi  $NO_{\rm X}$ , determined in this equation: [(Fleet Average  $NO_{\rm X}$ 

Standard) – (Manufacturer's Fleet Average  $NO_X$  Value)] × (Total number of Tier 2 LDV/Ts Sold, Including ZEVs and HEVs)

Where: The number of Tier 2 LDV/Ts sold is based on the point of first sale and does not include vehicles sold in California or a state that adopts, and has in effect for that model year, California emission requirements.

(2) Where the result of the calculation in paragraph (b)(1) of this section is a negative number, the manufacturer must generate negative  $NO_X$  credits (debits).

(c) Early banking. (1)(i) Manufacturers may certify LDV/LLDTs to the Tier 2 FTP exhaust standards in § 86.1811–04 for model years 2001–2003 in order to bank credits for use in the 2004 and later model years. Such vehicles must also meet SFTP exhaust emission standards specified in § 86.1811–04.

(ii) Manufacturers may certify HLDTs to the Tier 2 FTP exhaust standards in § 86.1811–04 for model years 2004–2007 in order to bank credits for use in the 2008 and later model years. Such vehicles must also meet SFTP exhaust emission standards specified in § 86.1811–04.

(iii) This process is referred to as "early banking" and the resultant credits are referred to as "early credits". In order to bank early credits, a manufacturer must comply with all exhaust emission standards and requirements applicable to Tier 2 LDV/LLDTs and/or HLDTs, as applicable, except as allowed under paragraph (c)(4) of this section.

(2) To generate early credits, a manufacturer must separately compute the sales weighted  $NO_X$  average of the LDV/LLDTs and HLDTs it certifies to the Tier 2 exhaust requirements and separately compute credits using the calculations in this section and in § 86.1860–04.

(3) Early HLDT credits may not be applied to LDV/LLDTs before the 2009 model year. Early LDV/LLDT credits may not be applied to HLDTs before the 2009 model year.

(4) Manufacturers may generate early Tier 2 credits from LDVs, LDT1s and LDT2s that are certified to a full useful life of 100,000 miles, provided that the credits are prorated by a multiplicative factor of 0.833 (the quotient of 100,000/120,000). Where a manufacturer has

both 100,000 and 120,000 mile full useful life vehicles for which it desires to bank early credits, it must compute the credits from each group of vehicles separately and then add them together.

(5) Manufacturers may bank early credits for later use to meet the Tier 2 corporate average  $NO_X$  standard or trade them to another manufacturer subject to the restriction in paragraph (c)(3) of this section.

- (6) Early credits may not be used to comply with the corporate average  $NO_X$  standards for interim non-Tier 2 LDV/ $T_S$
- (d) Reporting and recordkeeping for Tier  $2 NO_X$  credits including early credits. Each manufacturer must comply with the reporting and recordkeeping requirements of § 86.1862–04.

(e) Fleet average NO<sub>X</sub> debits. (1) Manufacturers must offset any debits for a given model year by the fleet average NO<sub>X</sub> reporting deadline for the model year following the model year in which the debits were generated.

Manufacturers may offset debits by

Manufacturers may offset debits by generating credits or acquiring credits generated by another manufacturer.

(2)(i) Failure to meet the requirements of paragraphs (a) through (d) of this section within the required timeframe for offsetting debits will be considered to be a failure to satisfy the conditions upon which the certificate(s) was issued and the individual noncomplying LDV/Ts not covered by the certificate must be determined according to this section.

(ii) If debits are not offset within the specified time period, the number of LDV/Ts not meeting the fleet average  $NO_X$  standards and not covered by the certificate must be calculated by dividing the total amount of debits for the model year by the fleet average  $NO_X$  standard applicable for the model year in which the debits were first incurred.

- (iii) EPA will determine the LDV/Ts for which the condition on the certificate was not satisfied by designating LDV/Ts in those engine families with the highest certification NO<sub>X</sub> emission values first and continuing until a number of LDV/Ts equal to the calculated number of noncomplying LDV/Ts as determined above is reached. If this calculation determines that only a portion of LDV/ Ts in an engine family contribute to the debit situation, then EPA will designate actual LDV/Ts in that engine family as not covered by the certificate, starting with the last vehicle produced and counting backwards.
- (3) If a manufacturer ceases production of LDV/Ts or is purchased by, merges with or otherwise combines with another manufacturer, the manufacturer continues to be

responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered to be a violation of paragraph (e)(1) of this section and may subject the manufacturer to an enforcement action for sale of LDV/Ts not covered by a certificate, pursuant to paragraph (e)(2) of this section.

(4) For purposes of calculating the statute of limitations, a violation of the requirements of paragraph (e)(1) of this section, a failure to satisfy the conditions upon which a certificate(s) was issued and hence a sale of LDV/Ts not covered by the certificate, all occur upon the expiration of the deadline for offsetting debits specified in paragraph (e)(1) of this section.

(f)  $NO_X$  credit transfers. (1) EPA may reject  $NO_X$  credit transfers if the involved manufacturers fail to submit the credit transfer notification in the annual report.

(2) A manufacturer may not sell credits that are not available for sale pursuant to the provisions in paragraphs (a)(2) and (a)(7) of this section.

(3) In the event of a negative credit balance resulting from a transaction, both the buyer and seller are liable, except in cases involving fraud. EPA may void *ab initio* the certificates of conformity of all engine families participating in such a trade.

(4)(i) If a manufacturer transfers a credit that it has not generated pursuant to paragraph (b) of this section or acquired from another party, the manufacturer will be considered to have generated a debit in the model year that the manufacturer transferred the credit. The manufacturer must offset such debits by the deadline for the annual report for that same model year.

(ii) Failure to offset the debits within the required time period will be considered a failure to satisfy the conditions upon which the certificate(s) was issued and will be addressed pursuant to paragraph (e) of this section.

(g) Interim non-Tier 2 NO<sub>X</sub> credits and debits; Interim non-Tier 2 averaging, banking and trading. Interim non-Tier 2 NO<sub>X</sub> credits must be generated, calculated, tracked, averaged, banked, traded, accounted for and reported upon separately from Tier 2 credits. The provisions of this section applicable to Tier 2 NO<sub>X</sub> credits and debits and Tier 2 averaging banking and trading are applicable to interim non-Tier 2 LDV/Ts with the following exceptions:

(1) Provisions for early banking under paragraph (c) of this section do not

(2) The fleet average  $\mathrm{NO_X}$  standard used for calculating credits is 0.30 grams per mile for interim non-Tier 2

LDV/LLDTs and 0.20 g/mi for interim non-Tier 2 HLDTs. (The interim non-Tier 2 NO $_{\rm X}$  standard of 0.30 (or 0.20) g/mi replaces 0.07 in the text and calculation in this section.)

- (3) Interim non-Tier 2  $NO_X$  credit deficits may be carried forward for more than one year, except that all credit deficits must be reduced to zero for interim non-Tier 2 LDV/LLDTs by the end of the 2006 model year, and by the end of the 2008 model year for interim non-Tier 2 HLDTs.
- 42. Section 86.1862–04 is added to read as follows:

# § 86.1862–04 Maintenance of records and submittal of information relevant to compliance with fleet average $\text{NO}_{\rm X}$ standards.

- (a) Maintenance of records. (1) The manufacturer producing any light-duty vehicles and/or light-duty trucks subject to the provisions in this subpart must establish, maintain, and retain the following information in adequately organized and indexed records for each model year:
  - (i) Model year;
- (ii) Applicable fleet average  $NO_X$  standard: 0.07g/mi for Tier 2 LDV/Ts; 0.30 g/mi for interim non-Tier 2 LDV/LLDTs; or 0.20 g/mi for interim non-Tier 2 HLDTs;
- (iii) Fleet average  $NO_{\mathrm{X}}$  value achieved; and
- (iv) All values used in calculating the fleet average  $\mathrm{NO}_\mathrm{X}$  value achieved.
- (2) The manufacturer producing any LDV/Ts subject to the provisions in this subpart must establish, maintain, and retain the following information in adequately organized and indexed records for each LDV/T subject to this subpart:
  - (i) Model year;
- (ii) Applicable fleet average  $NO_X$  standard;
  - (iii) EPA test group;
  - (iv) Assembly plant;
  - (v) Vehicle identification number;
- (vi) NO<sub>X</sub> standard to which the LDV/T is certified; and
- (vii) Information on the point of first sale, including the purchaser, city, and state.
- (3) The manufacturer must retain all records required to be maintained under this section for a period of eight years from the due date for the annual report. Records may be retained as hard copy or reduced to microfilm, ADP diskettes, and so forth, depending on the manufacturer's record retention procedure; provided, that in every case all information contained in the hard copy is retained.
- (4) Nothing in this section limits the Administrator's discretion to require the

manufacturer to retain additional records or submit information not specifically required by this section.

(5) Pursuant to a request made by the Administrator, the manufacturer must submit to the Administrator the information that the manufacturer is required to retain.

(6) EPA may void *ab initio* a certificate of conformity for a LDV/T certified to emission standards as set forth or otherwise referenced in this subpart for which the manufacturer fails to retain the records required in this section or to provide such information to the Administrator upon request.

- (b) Reporting. (1) Each covered manufacturer must submit an annual report. Except as provided in paragraph (b)(2) of this section, the annual report must contain, for each applicable fleet average NO<sub>X</sub> standard, the fleet average NO<sub>X</sub> value achieved, all values required to calculate the NO<sub>X</sub> value, the number of credits generated or debits incurred, and all the values required to calculate the credits or debits. The annual report must contain the resulting balance of credits or debits.
- (2) When a manufacturer calculates compliance with the fleet average  $NO_X$  standard using the provisions in § 86.1860–04(c)(2), then the annual report must state that the manufacturer has elected to use such provision and must contain the fleet average  $NO_X$  standard as the fleet average  $NO_X$  value for that model year.
- (3) For each applicable fleet average  $\mathrm{NO}_{\mathrm{X}}$  standard, the annual report must also include documentation on all credit transactions the manufacturer has engaged in since those included in the last report. Information for each transaction must include:
  - (i) Name of credit provider;(ii) Name of credit recipient;
  - (iii) Date the transfer occurred;
- (iv) Quantity of credits transferred; and
- (v) Model year in which the credits were earned.
- (4) Unless a manufacturer reports the data required by this section in the annual production report required under § 86.1844-01(e) and subsequent model year provisions, a manufacturer must submit an annual report for each model year after production ends for all affected vehicles and trucks produced by the manufacturer subject to the provisions of this subpart and no later than May 1 of the calendar year following the given model year. Annual reports must be submitted to: Director, Vehicle Programs and Compliance Division, U.S. Environmental Protection Agency, 2000 Traverwood, Ann Arbor, Michigan 48105.

- (5) Failure by a manufacturer to submit the annual report in the specified time period for all vehicles and trucks subject to the provisions in this section is a violation of section 203(a)(1) of the Clean Air Act for each subject vehicle and truck produced by that manufacturer.
- (6) If EPA or the manufacturer determines that a reporting error occurred on an annual report previously submitted to EPA, the manufacturer's credit or debit calculations will be recalculated. EPA may void erroneous credits, unless transferred, and must adjust erroneous debits. In the case of transferred erroneous credits, EPA must adjust the manufacturer's credit or debit balance to reflect the sale of such credits and any resulting generation of debits.
- (c) Notice of opportunity for hearing. Any voiding of the certificate under paragraph (a)(6) of this section will be made only after EPA has offered the manufacturer concerned an opportunity for a hearing conducted in accordance with § 86.614 for light-duty vehicles or § 86.1014 for light-duty trucks and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

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### ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 80 and 86 [AMS-FRL-6337-4] RIN 2060-AI32

### **Control of Diesel Fuel Quality**

**AGENCY:** Environmental Protection Agency.

**ACTION:** Advance notice of proposed rulemaking.

SUMMARY: Diesel engines used in motor vehicles and nonroad equipment are a major source of nitrogen oxides and particulate matter, both of which contribute to serious health problems in the United States. We are considering setting new quality requirements for fuel used in diesel engines, in order to bring about large environmental benefits through the enabling of a new generation of diesel emission control technologies.

Because the pursuit of diesel fuel quality changes would be a major undertaking for the Agency and affected industries, and because of the many unresolved issues involved, we are publishing this advance notice to summarize the issues, with the goal of helping you to better inform us as we consider how to proceed. To aid this process, we have grouped key questions under issue topic headings that are numbered sequentially throughout this notice.

Although this advance notice solicits comment on all potentially beneficial diesel fuel quality changes, we believe that the most promising change would be fuel desulfurization for the purpose of enabling new engine and aftertreatment technologies that, although highly effective, are sensitive to sulfur.

**DATES:** You should submit written comments on this advance notice by June 28, 1999.

**ADDRESSES:** You may submit written comments in paper form and/or by Email. To ensure their consideration, all comments must be submitted to us by the date indicated under **DATES** above. Paper copies of comments should be submitted (in duplicate if possible) to Public Docket No. A-99-06 at the following address: U.S. Environmental Protection Agency, Air Docket Section, Room M-1500, 401 M Street, SW, Washington, DC 20460. We request that you also send a separate copy to the contact person listed below. Those submitting a paper copy of their comments are also encouraged to submit an electronic copy (in ASCII format) by E-mail to "A-and-R-Docket@epa.gov", or on a 3.5 inch diskette. You may also submit comments by E-mail to the docket at the address listed above (with a copy to the contact person listed below) without the submission of a paper copy. However, we encourage you to send a paper copy as well to ensure the clarity of your submission.

Materials related to this rulemaking are available for review at EPA's Air Docket at the above address (on the ground floor in Waterside Mall) from 8:00 a.m. to 5:30 p.m., Monday through Friday, except on government holidays. The telephone number for EPA's Air Docket is (202) 260–7548, and the facsimile number is (202) 260–4400. A reasonable fee may be charged by EPA for copying docket materials, as provided in 40 CFR part 2.

### FOR FURTHER INFORMATION CONTACT: Carol Connell, U.S. EPA, National Vehicle and Fuels Emission Laboratory, 2000 Traverwood, Ann Arbor, MI 48105; Telephone (734) 214–4349, FAX (734) 214–4050, E-mail connell.carol@epa.gov.

### SUPPLEMENTARY INFORMATION:

I. Why Is EPA Considering Diesel Fuel Changes?II. Diesel Engines and Air Quality