

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 51, 85 and 86

[AMS-FRL-5311-2]

RIN 2060-AF75

#### Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines: Voluntary Standards for Light-Duty Vehicles

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of Proposed Rulemaking (NPRM).

**SUMMARY:** Today EPA is proposing regulations to establish a National Low Emission Vehicle (National LEV) program. Under these regulations, auto manufacturers would be able to volunteer to comply with more stringent tailpipe standards for cars and light-duty trucks. Once a manufacturer opted into the program, the standards would be enforced in the same manner as any other federal motor vehicle pollution control requirement. EPA is proposing that this program would relieve the 13 states in the Northeastern part of the country (the Ozone Transport Region or OTR) of the December, 1994, regulatory obligation to adopt their own motor vehicle programs. Today's NPRM also proposes to harmonize federal and California motor vehicle standards and test procedures to enable manufacturers to design and test vehicles to one set of standards nationwide.

This NPRM is another step in an ongoing process to achieve cleaner air in the OTR. The OTR States submitted a petition in February, 1993, requesting EPA to require all states in the OTR to adopt the more stringent California motor vehicle program. Since then, under EPA's leadership, the OTR States, auto manufacturers, environmental groups, fuel providers and other interested parties have worked together with EPA to develop a program that is agreeable to all parties, achieves equivalent or better emission reductions from motor vehicles in the OTR (compared to state-by-state adoption of the California program), reduces pollution nationwide, and does so in a cost-effective manner. If National LEV is implemented, it will demonstrate how cooperative, partnership efforts can produce a smarter, cheaper program that reduces regulatory burden while increasing protection of the environment and public health.

**DATES:** Written comments on this NPRM must be submitted by November 9, 1995. Please direct all correspondence

to the address specified below. EPA will hold a public hearing on this NPRM on November 1, 1995 if one is requested by October 20, 1995. The public hearing, if requested, would begin at 9:00 a.m. and continue until 4:30 p.m. or until all commenters have the opportunity to testify.

**ADDRESSES:** Interested parties may submit written comments (in triplicate if possible) to Public Docket No. A-95-26, at: Air Docket Section, U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460 (Telephone 202-260-7548; FAX 202-260-4000). Materials relevant to this proposed rulemaking have been placed in Docket No. A-95-26. The docket is located at the above address in Room M-1500, Waterside Mall, and may be inspected weekdays between 8:30 a.m. and 5:30 p.m. A reasonable fee may be charged by EPA for copying docket materials.

Members of the public may call the contact person indicated below to find out whether a hearing will be held and, if so, the exact location. Requests for a public hearing should be directed to the contact person indicated below. The hearing, if requested, will be held in Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Michael Shields, Office of Mobile Sources, U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460. Telephone (202) 260-7757. FAX (202) 260-6011.

#### SUPPLEMENTARY INFORMATION:

##### I. Obtaining Electronic Copies of the Regulatory Language

Electronic copies (on 3.5" diskettes) of the proposed regulatory language may be obtained free of charge by visiting, calling, or writing the Environmental Protection Agency, Certification Division, 2565 Plymouth Road, Ann Arbor, MI 48105, (313) 668-4384. Refer to Docket A-95-26. A copy is available for inspection in the docket (see Addresses).

The proposed regulatory language is also available electronically on the Technology Transfer Network (TTN). TTN is an electronic bulletin board system (BBS) operated by EPA's Office of Air Quality Planning and Standards. Users are able to access and download TTN files on their first call. The steps required to access information on this rulemaking are listed below. The service is free, except for the cost of the phone call.

TTN BBS: 919-541-5742 (1,200-14,400 bps, no parity, eight data bits, one stop bit)  
Voice help: 919-541-5384

Internet address: TELNET  
ttnbbs.rtpnc.epa.gov

Off-line: Mondays from 8:00-12:00 Noon ET

1. Technology Transfer Network Top Menu: <T> GATEWAY TO TTN TECHNICAL AREAS (Bulletin Boards) (Command: T)
2. TTN TECHNICAL INFORMATION AREAS: <M> OMS—Mobile Sources Information (Command: M)
3. OMS BBS === MAIN MENU FILE TRANSFERS: <O> Other OMS Documents (Command: O)

At this stage, the system will list all available files in this area. To download a file, select a transfer protocol that will match the terminal software on your computer, then set your own software to receive the file using that same protocol. If unfamiliar with handling compressed (that is, ZIP'd) files, go to the TTN top menu, System Utilities (Command: 1) for information and the necessary program to download in order to unzip the files of interest after downloading to your computer. After getting the files you want onto your computer, you can quit TTN BBS with the <G>odbye command.

## II. Outline and List of Acronyms

### A. Outline

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#### B. List of Acronyms

AAMA: American Automobile Manufacturers Association  
 AQL: Acceptable Quality Level  
 ATV(s): Advanced Technology Vehicle(s)  
 CAA: Clean Air Act  
 CAAA: Clean Air Act Amendments  
 CALLEV: California Low Emission Vehicle Program  
 CARB: California Air Resources Board  
 CFR: Code of Federal Regulations  
 CFV: Clean Fuel Vehicle  
 CO: Carbon Monoxide  
 CST: Certification Short Test  
 EPA: U.S. Environmental Protection Agency  
 EPAAct: Energy Policy Act  
 FID: Flame Ionization Detector  
 FR: Federal Register

FTP: Federal Test Procedure  
 GVWR: Gross Vehicle Weight Rating  
 HC: Hydrocarbon  
 HCHO: Formaldehyde  
 HEV(s): Hybrid Electric Vehicle(s)  
 HLDT(s): Heavy Light-Duty Truck(s)  
 ICI(s): Independent Commercial Importer(s)  
 I/M: Inspection and Maintenance  
 LDT(s): Light-Duty Truck(s)  
 LDV(s): Light-Duty Vehicle(s)  
 LEV(s): Low Emission Vehicle(s)  
 LLDT(s): Light Light-Duty Truck(s)  
 LVW: Loaded Vehicle Weight  
 MIL: Malfunction Indicator Light  
 MY: Model Year  
 NAAQS: National Ambient Air Quality Standards  
 National LEV: National Low Emission Vehicle  
 NLEV: National Low Emission Vehicle  
 NMHC: Non-methane Hydrocarbons  
 NMOG: Non-methane Organic Gases  
 NO<sub>x</sub>: Oxides of Nitrogen  
 NPRM: Notice of Proposed Rulemaking  
 OBD: On-Board Diagnostics  
 OBD II: On-Board Diagnostics Requirements  
 OEM(s): Original Engine Manufacturer(s)  
 ORVR: On-Board Refueling Vapor Recovery  
 OTC: Ozone Transport Commission  
 OTC LEV: Ozone Transport Commission Low Emission Vehicle  
 OTR: Ozone Transport Region  
 PM: Particulate Matter  
 RAF(s): Reactivity Adjustment Factor(s)  
 RIA: Regulatory Impact Analysis  
 RVP: Reid Vapor Pressure  
 SEA: Selective Enforcement Audit  
 SFTP: Supplemental Federal Test Procedure  
 SIP: State Implementation Plan  
 THC: Total Hydrocarbon  
 TLEV(s): Transitional Low Emission Vehicle(s)  
 ULEV(s): Ultra Low Emission Vehicle(s)  
 VOC(s): Volatile Organic Compounds  
 ZEV(s): Zero Emission Vehicle(s)

### III. Introduction and Background

Today EPA is proposing regulations for the National Low Emission Vehicle (LEV) program—EPA believes this is a cleaner, smarter, cheaper pollution control program for new motor vehicles. Under the program, auto manufacturers would have the option of agreeing to comply with tighter tailpipe emission standards—standards that EPA does not have authority to impose now. Once manufacturers committed to the program, the standards would be enforceable—just as all other federal motor vehicle standards are enforceable. Manufacturers have indicated that they would be willing to volunteer to meet these tighter standards if EPA and the states in the northeastern part of the country (the OTR States) are willing to agree to a program that meets certain conditions, including providing manufacturers with regulatory stability, recognizing that establishing advanced technology vehicles in the Northeast is a shared responsibility (rather than the sole responsibility of auto

manufacturers), and reducing regulatory burden by harmonizing federal and California motor vehicle standards.

The National LEV proposal is another step in an unprecedented, cooperative effort by the Ozone Transport Commission (OTC) States, auto manufacturers, environmentalists, fuel providers, EPA and other interested parties to improve air quality. The OTC States and environmentalists provided the opportunity for this cooperative effort by pushing for adoption of the California LEV program throughout the Ozone Transport Region (OTR). Under EPA's leadership, the states, auto manufacturers, environmentalists and other interested parties then embarked on a process that was marked by extensive public participation, a willingness to work with each other and to solve problems jointly, and the development of trust between the various participants. This working relationship is particularly remarkable given the adversarial and litigious nature of the interactions between the parties in the recent past. EPA applauds the efforts of these parties, particularly the leadership shown by the OTC States and the auto manufacturers.

Given statutory constraints, National LEV will be implemented only if it is agreed to by the OTC States and the auto manufacturers. EPA does not have authority to force either side to sign up to the program. Although the OTR States and the automobile industry have reached agreement on many aspects of a 49-state program, agreement has not yet been reached on all issues. However, because EPA believes agreement is close, and to allow National LEV to be implemented promptly once an agreement is reached, EPA today is proposing regulations that would provide the regulatory framework for the National LEV program.

National LEV benefits the environment by reducing air pollution nationwide. This program is designed to address air pollution problems and will produce public health and environmental benefits both inside and outside the OTR. This should assist states outside the OTR that were considering adopting the California program in meeting their obligations under the Clean Air Act (CAA).

EPA has determined that the National LEV program will result in emissions reductions in the Northeast OTR that are equivalent to or better than the emissions reductions that would be achieved by state-by-state adoption of the California LEV program (including Zero Emission Vehicle (ZEV) mandates). Thus, EPA is proposing that National LEV would relieve the OTR States of

their regulatory obligation to adopt and implement a state motor vehicle program. This obligation arose when the OTR States had requested that EPA require all the OTR States to adopt the more stringent California Low Emission Vehicle (LEV) program, and EPA granted the request in December, 1994, based on the finding that the region needed the emission reductions to achieve and maintain the ozone National Ambient Air Quality Standards (NAAQS). Not only will National LEV provide emissions reductions benefits to the OTC States, it will reduce states' costs of providing their citizens with healthy air by avoiding the costs of state programs that duplicated each others' and EPA's efforts.

National LEV would also provide important relief from certain regulatory requirements to the auto manufacturers. Rather than having a fleet of California vehicles that are designed and tested to California standards and a fleet of federal vehicles that are designed and tested to different federal standards, in most instances manufacturers will have harmonized standards that will allow them to sell most vehicles nationwide. Not only will this reduce testing and design costs, it should allow more efficient distribution and marketing of vehicles nationwide.

The cooperative nature of the program by itself should provide environmental benefits sooner and in a way that greatly reduces regulatory transaction costs from what would otherwise be the case. Focusing energy on implementing the program the parties helped jointly design will be a better use of resources than continued fighting over whether any program should be implemented at all.

#### A. Introduction

In this document, EPA is proposing a voluntary, National Low Emission Motor Vehicle (National LEV) program. The National LEV program would include a set of motor vehicle emission standards that would significantly reduce emissions of ozone-producing pollutants from new motor vehicles. The program would include a manufacturer fleet average standard for non-methane organic gases (NMOG) applicable in the Northeast OTR states<sup>1</sup> beginning in model year 1997, and applicable nationwide (except for

<sup>1</sup> The OTR is made up of: Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, and the part of Virginia that is within the Consolidated Metropolitan Statistical Area that includes the District of Columbia (collectively OTR or OTC States).

California) beginning in model year 2001. Manufacturers would not be required to meet the standards in this program unless they choose to opt into the program. However, if a manufacturer were to opt into the program and EPA were to find that the program was in effect, then the manufacturer would be bound by the program's requirements. A manufacturer could opt out of the program in certain limited circumstances.

In this notice, EPA is also proposing that the National LEV program would relieve OTR States of an existing regulatory requirement. On December 19, 1994, EPA approved a petition submitted by the Northeast Ozone Transport Commission (OTC) to require OTR States to adopt the California Low Emission Vehicle (LEV) program (which it called the Ozone Transport Commission's Low Emission Vehicle (OTC LEV) program).<sup>2</sup> EPA found that the reduction of emissions from new motor vehicles throughout the OTR is necessary to mitigate the effects of air pollution transport in the region, and to bring ozone nonattainment areas in the OTR into attainment (including maintenance) by the dates specified in the Clean Air Act, as amended in 1990 (CAA, or the Act). 60 FR 4712 (January 24, 1995) (OTC LEV decision). Under the OTC's recommended program, all new motor vehicles sold in the OTR beginning in model year 1999 would be required to be certified by the California Air Resources Board (CARB) to any one of the California motor vehicle emissions standards (i.e., California Tier 1, Transitional Low-Emission Vehicle (TLEV), LEV, Ultra Low-Emission Vehicle (ULEV), or ZEV). Manufacturers could choose any mix of California-certified vehicles to comply with annual fleet average NMOG standards, which become increasingly stringent over time. Pursuant to the OTC recommendation, individual states in the OTR would be permitted (but not required) to adopt the ZEV mandate. *See* 60 FR 4712, 4724 (January 24, 1995).

EPA is proposing that National LEV is an acceptable alternative to OTC LEV.<sup>3</sup> National LEV would be an enforceable program that would achieve reductions in new motor vehicle emissions that are at least equivalent to the reductions that would be achieved through implementation of the OTC LEV program. Therefore, if EPA finds that the National LEV program is in effect,

<sup>2</sup> Under the OTC LEV decision, the States also have the option of submitting a "shortfall" SIP, as described in Section III.C.3. *See* 60 FR at 4730.

<sup>3</sup> In today's notice, EPA is proposing the criteria that must be met for an alternative program to qualify as an acceptable LEV-equivalent.

OTC States would not be required to adopt the OTC LEV program to meet the State Implementation Plan (SIP) call EPA issued in the OTC LEV decision.

EPA provided numerous opportunities for public participation in the decision-making process leading to OTC LEV and National LEV, as described more fully in Section C.4. EPA established a subcommittee of the Clean Air Act Advisory Committee, pursuant to the Federal Advisory Committee Act, to evaluate issues relating to obtaining reductions in emissions from motor vehicles in the OTR. The Subcommittee has also served as a public forum to discuss voluntary, 49-state motor vehicle standards, and provided comments to EPA regarding today's proposal.

#### B. Benefits of National LEV Program

The national motor vehicle emissions control program proposed today represents a significant step towards the goal of reducing smog in heavily populated urban areas, both in the northeastern United States and in the rest of the country. The National LEV program would also achieve reductions in emissions of other pollutants, including particulate matter (PM), and formaldehyde (HCHO).

Ground-level ozone, the principal harmful component in smog, is produced by a complex set of chemical reactions involving volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>) in the presence of sunlight. Ground-level ozone causes health problems, including damaging lung tissue, reducing lung function, and sensitizing the lungs to other irritants. Scientific evidence indicates that the ambient levels of ozone affect healthy adults and children, as well as people with impaired respiratory systems, such as asthmatics. A reduction in lung function during periods of moderate exercise has been found following exposure to ozone for 6 to 7 hours at concentrations at or near the current standard. This decrease in lung function may be accompanied by symptoms such as chest pain, coughing, nausea, and pulmonary congestion. Studies, to date, indicate that the acute health effects of exposure to ozone at the level of the current national standard (such as coughing, chest pain, and shortness of breath) are reversible in most people when the exposure stops. However, the extent of such reversibility depends on factors such as the length of exposure and individual activity level. With repeated exposure to ozone over time, many of these symptoms attenuate but some indicators of cell damage suggest continued lung inflammation. Ground-

level ozone is also responsible for significant agricultural crop yield losses each year. Studies also indicate that the current ambient levels of ozone are responsible for damage to both terrestrial and aquatic ecosystems, including acidification of surface waters, reduction in fish populations, damage to forests and wildlife, soil degradation, and reduced visibility.

The National LEV program would result in significant environmental and public health benefits nationwide. There are 57 ozone nonattainment areas in the U.S. outside the OTR and California, including several areas classified as "serious" or "severe" for ozone. Houston and the upper Midwest, in particular, experience high levels of ground-level ozone pollution. The implementation of the National LEV program nationwide in 2001 will advance the goal of emissions reductions in those areas as well. A vehicle certified to the National LEV standards would, over its lifetime, emit 400 pounds less pollution than a Tier 1 vehicle. Implementation of National LEV is expected to achieve nationwide reductions of NO<sub>x</sub> emissions of 400 tons/day in 2005 and 1200 tons/day in 2015, and nationwide reductions in NMOG emissions of 279 tons/day in 2005 and 778 tons/day in 2015.

In evaluating the OTC petition, EPA analyzed the level of emissions reductions that are needed throughout the OTR to attain (or maintain) the national ambient air quality standard for ozone, given the serious transport issue. The primary NAAQS for various pollutants, including ozone, are set by EPA on the basis of air quality criteria and allowing an adequate margin of safety, at a level that the Agency determines is necessary to protect public health. EPA concluded, based on its analysis in the context of the OTC LEV decision, that NO<sub>x</sub> reductions of 50 to 75% from 1990 levels from every portion of the OTR lying to the south, southwest, west, and northwest of each serious or severe OTR nonattainment area, and VOC reductions of 50 to 75% from the portion of the OTR in or near (and upwind of) each serious and severe OTR nonattainment area, are necessary to bring each such nonattainment area into attainment by the applicable date.

Motor vehicles are a significant contributor to smog because of their emissions of VOCs and NO<sub>x</sub>. EPA has projected that, without a program that achieves reductions in the northeastern United States equivalent to those achieved by OTC LEV, on-highway vehicles will account for approximately 38% of NO<sub>x</sub> emissions and 22% of anthropogenic VOC emissions in 2005.

More stringent motor vehicle standards outside the OTR, such as those proposed today, will help the OTR achieve necessary reductions (in addition to the benefits produced in those states outside the OTR). EPA estimated that migration into the OTR of non-LEV vehicles would result in a 16 ton/day increase in VOC emissions and a 28 ton/day increase in NO<sub>x</sub> emissions in 2005 compared to EPA's estimates of highway vehicle emissions in the OTR under the OTC LEV program. The National LEV program, when implemented nationwide in 2001, would greatly reduce this migration effect.

As described in the OTC LEV decision, EPA's modelling analyses support the conclusion that no combination of potentially broadly practicable control measures in the OTR would be sufficient to achieve the necessary level of emissions reductions without more stringent new motor vehicle emission standards. Thus, EPA determined that all of the emissions reductions in the OTR associated with implementing the OTC LEV program, or a LEV-equivalent program, are necessary.

EPA has determined that the National LEV program proposed today would provide at least equivalent emissions reductions in the OTR as would OTC LEV, and do so in a more efficient and cost-effective manner. The National LEV program would result in equal or greater reductions in emissions of VOCs and NO<sub>x</sub> in the OTR for two reasons. First, the National LEV program would provide for the introduction of transitional low emission vehicles (TLEVs) in the OTR in 1997, two years earlier than would be required under the OTC LEV program. Also, since the National LEV program would apply nationwide (except for California) in 2001, vehicles purchased outside the OTR that move into the region would be up to 70% cleaner than incoming vehicles (i.e., Tier 1 vehicles) would be under the OTC LEV program.

The National LEV program is also expected to achieve pollution reduction benefits from motor vehicles beyond those associated with ozone pollution. Under National LEV, motor vehicles across the nation will also be required to meet emissions standards for PM and formaldehyde (HCHO) that are more stringent than the comparable federal Tier 1 standards. All states, not just those in the OTR, will realize air quality benefits from implementation of these standards.

The National LEV program will require light-duty diesel motor vehicles and light-duty diesel trucks to meet

standards for emissions of particulate matter that are more stringent than the comparable Tier 1 standards. Particulate matter (PM) is the generic term for a broad class of chemically and physically diverse substances that exist as discrete particles over a wide range of sizes. PM emissions have been associated with numerous serious health effects, including upper and lower respiratory illnesses such as pneumonia, chronic obstructive pulmonary disease, chronic bronchitis, aggravation of the respiratory system in children with preexisting illnesses, and premature mortality in sensitive individuals (such as those with cardiovascular diseases). In addition, studies have shown that PM emissions episodes can result in a short-term decrease in lung function in small children. PM emissions also contribute to impairment of visibility, acidic deposition, and potential modification of the climate.

As discussed more fully in the RIA for this rulemaking, EPA's modelling shows that implementation of the National LEV program will result in a 28.6 ton/day effective PM-10 (particulates less than 10 microns in diameter) emissions reduction in 2005 (compared to expected PM emissions in a situation where current Tier 1 standards apply outside the OTC and OTC LEV is implemented within the OTC). Furthermore, in western areas with a PM pollution problem caused by nitrates (such as Denver), the NO<sub>x</sub> reductions achieved by the National LEV program would provide additional PM emissions benefits.

The National LEV program also includes standards for formaldehyde emissions from motor vehicles, unlike the current federal Tier 1 standards, which do not regulate emissions of formaldehyde.<sup>4</sup> In April 1993, pursuant to § 202(l) of the CAA, EPA released its assessment of the need for controlling emissions of toxic air pollutants from motor vehicles and motor vehicle fuels (EPA Motor Vehicle-Related Air Toxics Study). This study focused on the carcinogenic risk associated with such emissions, and discussed the health effects of the following specific toxic air pollutants: benzene, formaldehyde, 1,3-butadiene, acetaldehyde, and selected metals and motor vehicle-related pollutants identified as hazardous air pollutants in § 112(b) of the CAA. Interested readers should refer to this EPA study for more information

<sup>4</sup>If EPA promulgates standards for emissions of toxic air pollutants from new motor vehicles, including benzene and formaldehyde standards, pursuant to Section 202(l) of the Clean Air Act, those standards would apply to vehicles certified under the National LEV program.

regarding the health effects of toxic motor-vehicle-related air pollutants.

EPA has classified benzene as a Group A known human carcinogen, based on studies on workers showing that long-term exposure to high levels of benzene causes cancer. Exposure to benzene emissions has also been associated with non-cancer health effects, including blood disorders, adverse effects on the immune system, and damage to reproductive organs. EPA has classified formaldehyde as a probable human carcinogen, based on animal studies showing that long-term exposure to and inhalation of formaldehyde is associated with certain types of tumors. In addition, exposure to formaldehyde is associated with non-cancer health effects, including irritation of the eyes, nose, throat, and lower airway at low levels of exposure, and adverse effects on the liver and kidneys. As discussed more fully in the RIA for this rulemaking, EPA's modelling demonstrates that implementation of the National LEV program will result in reduced emissions of benzene (reduction of 7 tons/day) and formaldehyde (4 tons/day) nationwide in 2005.

EPA believes that the National LEV program is particularly promising because it would provide these nationwide health and environmental benefits while reducing some aspects of the auto manufacturers' regulatory burden and compliance costs. Currently, manufacturers design, test and produce two different types of vehicles (California and federal), each of which must meet different standards according to different test procedures. One of the goals of the National LEV program is to use a single test procedure and standard for each particular type of emission control requirement. Because of this harmonization with California's program,<sup>5</sup> implementation of the National LEV program will streamline the process for certifying a vehicle for sale, reduce auto manufacturers' design and testing costs, and provide other efficiencies in the marketing of automobiles.<sup>6</sup>

<sup>5</sup>In addition to using the same tailpipe standards as California, this notice also proposes several changes to EPA standards and test procedures that will further harmonize the federal and California motor vehicle emission control programs. EPA expects that the California Air Resources Board will reassess its regulations shortly in order to further this harmonization.

Even if National LEV becomes effective, California will continue to have its own program. Manufacturers could decide to sell some vehicles (such as ULEVs or ZEVs) in California (or California and the OTR), but not nationwide.

<sup>6</sup>EPA recently received a letter from the Government of Canada, indicating that

EPA also believes the National LEV program would be a preferable alternative to OTC LEV because it will use fewer regulatory, legislative and litigation resources than would OTC LEV since the implementation of the National LEV program would be premised on agreement reached by the OTR States, the auto manufacturers, and EPA. The OTR States, the auto manufacturers, and EPA, with input from environmental and public health groups, and other interested parties, have made significant efforts that resulted in a broad outline for a viable, cost-effective national low-emission vehicle program. EPA believes that cooperation among the various interested parties is the best way to achieve significant emissions reductions and to design a practical, enforceable, and efficient program. It allows the OTR States, EPA, auto manufacturers, other affected industry groups, environmental groups and other interested parties to spend resources making the program work instead of fighting each other on a state-by-state basis over adoption of OTC LEV. The National LEV program is a promising example of cooperation among state governments, the automobile manufacturers, public health and environmental groups, and the federal government, towards the goal of cleaner air in the northeast U.S. and the rest of the country.

EPA has also analyzed the costs of the National LEV program based on currently available information. The most recent detailed assessment of the cost of LEVs was produced by the California Air Resources Board (CARB) in 1994. CARB estimated the incremental cost of \$114 per car for LEVs only in California. EPA believes that the incremental cost for National LEV will be considerably less expensive than the CARB estimate for a variety of reasons. First, automotive pollution control technology has advanced since CARB made its estimate. For example, Honda recently announced the introduction of new LEV technology that will add little or no cost to vehicles. Second, the national LEV program includes numerous provisions to harmonize federal and California motor vehicle requirements. The resulting cost-savings for auto manufacturers (in

government's interest in adopting national motor vehicle emissions standards that are the same as those contained in any national low emission vehicle program adopted in the United States. Such harmonization of motor vehicle emission control standards in the United States and Canada would provide even greater efficiencies to the auto manufacturers, and would broaden the geographical range of the emissions benefits of such a program, including the specific benefit of reduced downwind pollution transport.

areas such as vehicle design, certification testing, mechanic training and inventory control) will be significant and offset at least a portion of the LEV production tests. Third, the nationwide production of LEVs will result in economics of scale for the manufacturers. Finally, auto industry experience has consistently demonstrated rapid price decreases in successive model years for newly-introduced technology. Analysis discussed in the RIA yields an annual incremental cost estimate compared to current regulatory obligations of \$700 million for the national LEV program, although EPA believes these costs would actually be lower, as discussed above. The total expenditure for new cars in the United States in 1993 was approximately \$225 billion.

### C. Background

To provide a context for, and background to, the program proposed in today's notice, it is necessary to discuss briefly the federal and California motor vehicle programs and the circumstances leading to EPA's OTC LEV decision. As described more fully below, EPA provided extensive and numerous opportunities for public involvement in that decision and in developing the framework for a national voluntary low emission vehicle program.

#### 1. Current Federal Motor Vehicle Emissions Control Program

The Clean Air Act prohibits the introduction into commerce of a new motor vehicle that is not covered by a certificate of conformity issued by EPA. To obtain such a certificate for a vehicle or engine family, manufacturers must demonstrate compliance with all federal emissions control standards and requirements that apply to new motor vehicles for that class or category of vehicles for the relevant model year. Emissions standards for model year (MY) 1994 new light-duty vehicles (LDVs) and light-duty trucks (LDTs) are codified at 40 CFR 86.094-8 and 86.094-9. EPA's current standards for control of exhaust emissions of non-methane hydrocarbon (NMHC), NO<sub>x</sub>, CO, and PM from new light-duty vehicles and new light-duty trucks were established in June 1991, and became effective beginning in model year 1994. See 56 FR 25724 (June 5, 1991).

The current standards (hereinafter "Tier 1 standards") are applicable for the full useful life of the vehicle. Manufacturers must certify new motor vehicles and engines to the Tier 1 standards using the Federal Test Procedure. In model year 1996 and thereafter, all LDVs and LDTs must

comply with the Tier 1 standards. Under section 207 of the Act, manufacturers must warrant the emissions performance of their new, certified motor vehicles for a portion of the vehicle's full useful life. EPA enforces the Tier 1 standards through its Selective Enforcement Audit program (assembly line testing) and through in-use compliance testing and recall programs.

The current federal motor vehicle emission control program also includes other standards and requirements that apply to new motor vehicles, such as evaporative emissions, cold temperature CO, on-board refueling vapor recovery, and on-board diagnostic equipment. The program proposed by EPA in today's action would continue to require new motor vehicles to comply with these requirements, but also proposes revisions to them to achieve greater harmonization with comparable California standards and requirements.

## 2. California Low Emission Vehicle Program

Section 209 of the Clean Air Act generally preempts states from adopting and enforcing standards relating to emissions from new motor vehicles and new motor vehicle engines.<sup>7</sup> However, the Act provides two exceptions. One allows EPA to waive preemption for the State of California, permitting that state to adopt and enforce its own motor vehicle emissions control program.<sup>8</sup> The second exception allows states other than California to adopt and enforce California's standards, if certain specified conditions are met.<sup>9</sup>

In 1990, California adopted the Low Emissions Vehicle (LEV) program, containing three basic components. First, manufacturers must certify new motor vehicles to one of the following five emissions categories, each characterized by an increasingly stringent set of emission standards: California Tier 1, Transitional Low Emission Vehicles (TLEVs), Low Emission Vehicles (LEVs), Ultra Low Emission Vehicles (ULEVs), and Zero Emission Vehicles (ZEVs). Second, manufacturers must comply with an overall NMOG fleet average standard. This requirement began in model year 1994 and becomes more stringent over time. The third element is a ZEV production mandate, which requires manufacturers to include a certain percentage of ZEVs each year in their light-duty vehicle fleet for sale in California. The ZEV mandate begins in

model year 1998, when 2% of the light-duty fleet must be ZEVs, and increases to 10% in model year 2003 and beyond. EPA granted California a waiver of preemption for its LEV program in January 1993. *See* 58 FR 4166 (January 13, 1993).

The States of New York, Massachusetts, and Connecticut, all of which are members of the OTR, have adopted all or portions of the California LEV program pursuant to Section 177 of the Act. Massachusetts is currently implementing its LEV program, and New York is initiating implementation with model year 1996. Connecticut has also adopted the California LEV program. The automobile manufacturers have challenged the New York and Massachusetts LEV programs in federal court. Recent district and appellate court decisions have upheld the New York and Massachusetts LEV programs.<sup>10</sup>

## 3. OTC LEV Decision

A summary of the OTC LEV decision is provided here. Interested parties are referred to the OTC LEV decision Supplementary Notice of Proposed Rulemaking, and Notice of Final Rulemaking for additional information. 59 FR 48664 (September 22, 1994); and 60 FR 4712 (January 24, 1995).

In February, 1994, the OTC formally recommended, pursuant to section 184(c) of the CAA, that EPA require all OTR States to adopt an OTC LEV program in their State Implementation Plans (SIPs). The OTC LEV program recommended by the OTC would require that, beginning in model year 1999, all new light-duty vehicles and light-duty trucks sold or otherwise introduced into commerce in the OTR be certified to California LEV program standards. In addition, manufacturers would be required to meet California's NMOG fleet average standard for such vehicles. The OTC recommended that member states be allowed, but not required, to adopt California's ZEV mandate, unless EPA determined that the Clean Air Act required a state to adopt the ZEV mandate in order to adopt the NMOG average part of the LEV program. In addition, the OTC stated that it expected EPA to evaluate alternatives to OTC LEV.

<sup>10</sup> *American Automobile Manufacturers Association (AAMA) v. Commissioner, Massachusetts Department of Environmental Protection*, 31 F.3d 18 (1st Cir. 1994); *Motor Vehicle Manufacturers Association v. New York State Department of Environmental Conservation*, 17 F.3d 521 (2nd Cir. 1994); *MVMA v. NYSDEC*, No. 92-CV-869 (D. Mass. Oct. 24, 1994); and *AAMA v. Greenbaum*, No. 93-10799-MA (D. Mass. Oct. 27, 1993).

On December 19, 1994, EPA approved the OTC recommendation. EPA found that the emissions reductions resulting from OTC LEV or a LEV-equivalent program are necessary for ozone nonattainment areas in the OTR to achieve attainment (and maintenance) by the applicable deadline, and that the OTC LEV program is consistent with the Clean Air Act. 60 FR 4712 (January 24, 1995). Based on that approval, EPA issued to each OTC State a finding that its SIP is substantially inadequate to meet certain requirements insofar as the SIP would not currently achieve those necessary emissions reductions. The States are required to submit a SIP revision on or before February 15, 1996, to cure this inadequacy.

In the OTC LEV decision, EPA found that states could satisfy the finding of SIP inadequacy by adopting OTC LEV, or by submitting a "shortfall" SIP.<sup>11</sup> The SIP inadequacy would also be satisfied if EPA were to determine through rulemaking that a federal 49-state motor vehicle emission control program was an acceptable LEV-equivalent program, and found that such program was in effect. Thus, if EPA were to find that auto manufacturers had opted into a LEV-equivalent federal motor vehicle emissions control program that is deemed acceptable by EPA through rulemaking action, then states would be relieved of the obligation under the OTC LEV decision to adopt the OTC LEV program in their SIPs.

## 4. Public Process

Given the serious and complicated issues raised by the OTC petition and the broad ramifications of these issues, EPA employed a public process designed to achieve quick resolution and to provide maximum opportunity for public participation in the decisionmaking process. Following receipt of the OTC petition, EPA published a notice of proposed rulemaking (NPRM) that detailed the Agency's analytic framework for a decision on the OTC's recommendation, identified the central issues EPA was considering, and proposed in the alternative to approve, disapprove, or partially approve and disapprove the recommendation. *See* 59 FR 21720 (April 26, 1994).

<sup>11</sup> As described in the OTC LEV decision, a "shortfall" SIP program must contain adopted measures that make up the shortfall between (1) the emission reductions necessary to prevent adverse consequences on downwind nonattainment, as determined by EPA in the OTC LEV decision, and (2) the emission reductions that would be achieved by the measures mandated by the Clean Air Act and potentially broadly applicable measures, as identified by EPA in the OTC LEV decision. *See* 60 FR at 4730.

<sup>7</sup> 42 U.S.C. 7543(a).

<sup>8</sup> 42 U.S.C. 7543(b).

<sup>9</sup> Clean Air Act section 177; 42 U.S.C. 7507.

Following publication of the NPRM, EPA held a series of public "roundtable" meetings, in addition to a public hearing on the notice. These roundtable meetings were designed to provide specific, detailed analyses of the relevant issues through interactive discussion among the various interested parties and members of the public, including states, environmental and public health groups, automobile manufacturers, and representatives from other industries in the OTR. These discussions produced promising advances towards development of a 49-state motor vehicle emissions control program as an alternative to the OTC LEV program. Interested parties should refer to the NPRM and the Supplemental Notice of Proposed Rulemaking (SNPRM) for more information. 59 FR 48664 (September 22, 1994). The written public comments on the OTC LEV NPRM and SNPRM, and EPA's responses, are in the public docket for the OTC LEV decision (Docket no. A-94-11).

The public interest in the OTC LEV decision process, and especially in the development of a 49-state motor vehicle emissions control program, prompted EPA to establish the Subcommittee on Mobile Source Emissions and Air Quality in the Northeastern States (hereinafter "the Subcommittee") of the Clean Air Act Advisory Committee in accordance with the Federal Advisory Committee Act. The Subcommittee was charged with evaluating the issues related to the petition and providing a public forum to discuss alternative motor vehicle standards that could apply in all states, except California. The Subcommittee members represent the spectrum of interests potentially affected by the OTC petition and any alternative programs. These interests include state and local governments within and outside the OTR, public health and environmental groups, automobile manufacturers and dealers, utilities, fuel providers, alternative fuel vehicle proponents and labor. In addition, the Subcommittee formed four working groups that allowed additional participants to focus on specific issues implicated by a 49-state motor vehicle emissions control program, including fuels, enforcement, incentives for the development of advanced technology vehicles, and emissions trading. The Subcommittee and the workgroups met frequently from September through November 1994. Possible program elements for this NPRM were discussed with the Subcommittee and Committee in June, 1995.

#### *D. National LEV Program*

##### **1. Agreement—A Necessary Predicate for the National LEV Program**

The National LEV program would be a voluntary program that could not be implemented without the agreement of the auto manufacturers and the OTC States. EPA cannot require the auto manufacturers to meet the National LEV exhaust standards, absent the manufacturers' consent, because Section 202(b)(1)(C) of the Clean Air Act prevents EPA from mandating new exhaust standards applicable before model year 2004. The auto manufacturers have said that they will not agree to be bound by the National LEV program unless the OTC States accept National LEV as an alternative to OTC LEV. EPA does not have authority to require the OTC States to accept the National LEV program. Thus, National LEV is dependent upon the auto manufacturers and the OTC States voluntarily committing to the program.

The OTC States and auto manufacturers are negotiating a voluntary, 49-state low emission motor vehicle program that would include committing to National LEV and to the introduction of advanced technology vehicles in the OTR. It is envisioned that, if an agreement is reached, it will be memorialized in a Memorandum of Understanding (MOU) to be signed by all OTR States and all auto manufacturers with sales in the United States. The National LEV program, which is the subject of today's notice, would be finalized as EPA regulations. The Advanced Technology Vehicle (ATV) component (which is discussed in more detail in Section V.A.2.c below) would be a separate agreement between the OTC States and auto manufacturers that would be contained in an attachment to the MOU. Although the OTC States and auto manufacturers have not yet reached final agreement, EPA believes it is appropriate to propose the National LEV program at this time. First, consensus has been reached on many of the elements to be proposed for the National LEV program. Where consensus has not been reached, EPA is soliciting comment on a broad range of issues and options raised by the proposed program, so that the Agency can resolve issues, in light of comments received on this notice, following signature of the MOU by the OTC States and the auto manufacturers. States and manufacturers are encouraged to provide comments on today's notice. Second, EPA does not want implementation of the MOU and the National LEV program to be delayed unnecessarily. The OTC States'

obligations to submit OTC LEV SIP revisions on February 16, 1996, creates a need for the OTC States to know soon whether the National LEV program will come into being.

Although several important issues are still under discussion, EPA understands that one of the primary unresolved issues between the OTC States and the auto manufacturers centers on the ZEV mandates that have been adopted or could be adopted in the future. EPA believes that this is a decision that must be left up to each individual OTC State. As EPA stated in the OTC LEV decision, 60 FR at 4724, states have the right to decide whether to adopt a ZEV mandate pursuant to Section 177 of the Clean Air Act, 42 U.S.C § 7507. EPA also believes that states have the right to decide to use other innovative approaches to increase the use of ZEVs and other advances in motor vehicle technology in their states. For example, states may develop programs such as cooperative efforts and other measures to advance infrastructure development and increase consumer demand for advanced technology vehicles to be used in conjunction with mandates measures or as stand alone programs. EPA understands that negotiations are continuing on this issue.

EPA also understands that another key area with important unresolved issues between the OTC States and the auto manufacturers is the area of state commitments. Specifically, full implementation of National LEV is premised on agreement on the content and form of state commitments regarding adoption or retention of a section 177 program that does not allow compliance with National LEV as a full alternative to compliance with the state program. Absent such an agreement, States retain their full rights under section 177.

EPA is hopeful that an agreement will be reached soon because of the many benefits of the National LEV program to the nation as a whole, the OTC States and the auto manufacturers. A set of uniform, more stringent standards that apply in 49 states is a more environmentally beneficial and economically efficient approach to achieving emissions reductions from new motor vehicles than a "patchwork" of California standards in some states and federal standards in others. The National LEV program would achieve at least the same level of emissions reductions in the OTR as would the OTC LEV program. The introduction of low emission vehicles nationwide would help alleviate pollution transport problems in the OTC and in other states and would eliminate concerns about

non-LEV vehicles being introduced into the OTR from states outside the region that have not adopted the California LEV program (CAL LEV). In addition, a 49-state program would impose less administrative burden on the OTC States and other states than would state-by-state adoption and enforcement of CAL LEV. Finally, it is beneficial to focus on implementation of a 49-state program that is supported by the OTC States, the auto manufacturers, and EPA, rather than expending resources litigating the OTC LEV decision and each OTC State's adoption of a LEV program.

## 2. Description of National LEV Program

In today's notice, EPA is proposing a set of national voluntary emissions standards (the National LEV program) to control emissions of ozone-forming pollutants from certain new motor vehicles. Under EPA's proposal, the program would apply to new light-duty vehicles (LDVs) and new light-duty trucks (LDTs) sold in the OTR beginning in model year 1997, and would expand to apply to all new LDVs and LDTs in the nation (except California) in model year 2001. Manufacturers that choose to opt into the National LEV program would be subject to this alternative set of federal exhaust emission standards in lieu of the federal Tier 1 exhaust emission standards. The National LEV program would require manufacturers to certify LDVs and LDTs to one of the following certification categories: Tier 1, TLEV, LEV, ULEV, or ZEV. Each certification category contains tailpipe emission standards for NMOG, CO, NO<sub>x</sub>, HCHO, and PM.

The National LEV program would also require manufacturers to produce and deliver for sale a combination of vehicles that complies with an annual fleet average NMOG value. The National LEV program would require the implementation of an increasingly stringent NMOG fleet average standard in the OTR for light-duty vehicles and light-duty trucks from model years 1997 to 2001. Beginning with model year 2001, manufacturers would be required to comply with a nationwide NMOG fleet average standard for LDVs and LDTs sold outside the OTR (except California) that is equivalent to a 100% LEV fleet. An averaging, banking and trading program comparable to California's could be used in meeting the NMOG fleet average requirements. In addition, manufacturers would be required to install on-board diagnostic systems that comply with California's On-board Diagnostics Requirement (OBD II) regulations on all National LEV vehicles.

As part of EPA's effort to reinvent environmental regulations by reducing regulatory burden without sacrificing environmental benefits, EPA is also proposing changes to harmonize federal and California standards and test procedures. Vehicles in the proposed National LEV program would continue to be required to comply with all other federal requirements applicable to LDVs and LDTs for the appropriate model year, including emissions standards and requirements, test procedures, and compliance and enforcement provisions. EPA is committed to working with CARB to harmonize federal and California standards and test procedures to the extent possible. Thus, today's action proposes changes designed to harmonize certain federal and California standards and test procedures. This should reduce the regulatory burden on manufacturers by facilitating the design, certification, and production of the same vehicles to meet both the National LEV and the California LEV program requirements.

Once manufacturers have voluntarily opted into the National LEV program and the program becomes effective, manufacturers will be bound by the provisions of the program. National LEV standards would be enforced in the same manner as any other federal motor vehicle standard. Manufacturers would have the ability to opt out of the program only in certain limited circumstances: (1) if any OTC State does not meet or keep the commitments it agrees it will make regarding adoption of OTC LEV or ZEV mandates; or (2) if, over manufacturer objections, EPA makes certain specified requirements more stringent, except as needed to harmonize with corresponding California requirements.

## IV. Provisions of National LEV Program

The proposed regulations establish a voluntary federal program of more stringent tailpipe emission standards for light-duty vehicles and light-duty trucks. As proposed, National LEV would include a set of new tailpipe emission standards and related requirements, which for most vehicles would effectively replace the otherwise applicable Tier 1 tailpipe standards and would not change for the duration of the program. The proposed National LEV standards and requirements would include: (1) tailpipe emissions standards for NMOG, NO<sub>x</sub>, CO, HCHO, and PM; (2) fleet average NMOG values; (3) allowance for the use of California reformulated gasoline II as test fuel for the tailpipe standards; (4) California on-board diagnostic system requirements (OBD II); (5) averaging, banking and

trading provisions; and (6) low volume manufacturer provisions.

In general, the National LEV standards and related requirements are patterned after California's more stringent tailpipe standards and NMOG fleet averages. As National LEV is voluntary, manufacturers would only have to comply with the National LEV standards if they chose to opt into the program. Once they have opted in, however, emissions equivalency and enforceability would be ensured by making continued compliance with the standards mandatory. Opt-out would be limited to certain triggering conditions which, if they occurred, would change the basic presumptions upon which the manufacturers opted into the program. Such conditions would be a change in one of the designated "Stable Standards" (as discussed below), or an OTC State's failure to meet or keep its commitment regarding adoption of a state motor vehicle program under section 177.

Any manufacturer that opts into the National LEV program would be fully subject to its requirements. Barring one of the limited and unlikely events that would allow manufacturers to opt out of the program, manufacturers would be required to meet the National LEV standards and requirements for all of the model years covered by the program. A manufacturer that failed to meet these requirements would be subject to the same enforcement measures as exist for mandatory federal programs.<sup>12</sup> Once manufacturers opted into National LEV, they would find administration and enforcement of its requirements indistinguishable from a traditional federal motor vehicle emissions program.

National LEV tailpipe emissions standards and related requirements would apply to manufacturers beginning in model year 1997, in the OTR, and extending at least through model year 2003. Manufacturers that opt into the program prior to model year 1997 would have to comply with the specified tailpipe emissions and related standards beginning in 1997 for light-duty vehicles and light-duty trucks offered for sale in the OTR, and beginning in 2001 for those same vehicle categories offered for sale in the rest of the country, except California. Any manufacturer that opts into the program after model year 1996 would have to comply with the standards beginning in the first model year after the model year in which that

<sup>12</sup> EPA would promulgate the voluntary standards under the authority of CAA sections 202 and 301.

manufacturer opted in.<sup>13</sup> The National LEV standards would continue to apply through model year 2003 or until the first model year for which manufacturers must meet federal standards promulgated under CAA § 202(i) ("Tier II" standards) that are at least as stringent as the National LEV standards, if certain conditions are met. By statute, EPA could not promulgate Tier II standards applicable before model year 2004, so the National LEV standards would apply at least through model year 2003.

While manufacturers may opt into the voluntary tailpipe and other standards described above, other federal standards and requirements in the federal motor vehicle control program remain mandatory. EPA is proposing various changes to these other applicable federal motor vehicle standards, which are designed to harmonize them with the California standards. EPA expects these changes to reduce the burden on manufacturers of dual compliance while retaining current levels of emissions control. These standards would remain mandatory federal standards, however, and are discussed in section VI below.

#### A. Program Structure

This section discusses basic structural elements of the National LEV program: the process and timing for manufacturers to opt into the program and for EPA to find that the program is "in effect;" the conditions allowing, process for and ramifications of a manufacturer's decision to opt out of the program; and the duration of the program.

##### 1. Opt-in to National LEV and In Effect Finding

The opt-in provisions are designed to provide a simple mechanism that allows EPA to determine readily when a manufacturer has opted in and become legally subject to the National LEV program requirements. EPA is proposing that a motor vehicle manufacturer would opt into the program by submitting a written notification that unambiguously and unconditionally states that the manufacturer is opting into the program, subject only to the condition that EPA subsequently find the program to be in effect by a certain date for purposes of satisfying the SIP call issued in the OTC LEV decision. The notification would also state that the manufacturer would not challenge EPA's authority to establish and enforce

the National LEV program.<sup>14</sup> The proposed regulations specify language that manufacturers would have to include in the statement. The statement would have to be signed by a person or entity within the corporation with authority to bind the corporation to its choice. EPA requests comment on whether the regulations should specifically identify the person or entity with such authority by title or other means, and if so, who or what would have such authority. The opt-in would become binding upon EPA's receipt of the statement, except that if the Administrator fails to sign a finding that the program is in effect within 60 days of signature of the final National LEV rule, manufacturers could withdraw conditional opt-ins. EPA is proposing that the "in effect" finding would not require further rulemaking if all auto manufacturers with sales in the United States opted in.

EPA is requesting comment on whether it should establish time limits for EPA to determine whether National LEV is in effect for purposes of satisfying the OTC LEV SIP call. Early determination of the status of National LEV is needed so manufacturers can plan their production accordingly and the OTC States will have sufficient time to cure the SIP inadequacy if National LEV does not come into effect. The proposed regulations require EPA to make a finding on whether the National LEV program is in effect within 60 days of signature of the final National LEV regulations. (If signature is the start of the time period for opt-in, EPA would provide directly affected parties actual notice and make copies of the final rule available within a week of signature.) Alternatively, EPA could establish a longer or shorter period to make the finding, or key the time period off of publication, instead of signature, of the final rule. On a longer timeframe, one option would be for the regulations to set a deadline for an in effect finding based on the agreed date for OTC States to submit their commitments regarding adoption or retention of CAA section 177 programs.

EPA is also taking comment on whether it should establish a time limit for manufacturers to opt in. While EPA is not proposing an absolute deadline, the regulations commit the Agency to consider opt-in notifications received within 45 days of signature of the final rule. EPA is also taking comment on the

following issues: Should the National LEV regulations require manufacturers to opt in by a specific date, and if so, by what date? Should the date be triggered by publication or signature of the final rule? How long should manufacturers have to opt-in? A short period (30–60 days) would give states and manufacturers certainty about their obligations, but a longer period (90–120 days) might be necessary to get requisite corporate sign-off. Should a specific date be set (e.g. December 31, 1995) so that OTC States will know prior to the start of state legislative sessions whether adoption of OTC LEV is necessary to cure the SIP inadequacy. In addition, EPA is requesting comment on whether manufacturers should be able to make their opt-ins conditional upon any other factors such as a condition that OTC States have made certain commitments regarding adoption or retention of section 177 programs by a given date.

##### 2. Opt-Out From National LEV

For the National LEV program to be useful and beneficial, it must continue in effect for a substantial period of time stretching into the next decade. States seek certainty regarding emissions benefits over time, while motor vehicle manufacturers seek certainty regarding emission standards to plan future production. The opt-out provisions are structured to support the goal of program stability.

Once manufacturers have voluntarily chosen to opt into the program, EPA is proposing that they could opt out of the program only under a few specified circumstances, or "offramps." As proposed, these offramps are limited to: (1) EPA modification of certain specified standards or requirements over the manufacturers' objection; or (2) an OTC State's failure to meet or keep its commitment regarding adoption or retention of a state motor vehicle program under section 177.

If a manufacturer were to opt out of the National LEV program, when that opt-out became effective the manufacturer would become subject to all standards that would apply if National LEV did not exist. The federal Tier 1 tailpipe emissions and related standards would apply, as would any state standards promulgated under section 177, regardless of whether those standards allowed the alternative of compliance with National LEV.

##### a. Conditions Allowing Opt-Out

###### (1) Changes to Stable Standards

EPA is proposing that certain specified standards and other requirements be classified as "Stable

<sup>13</sup>EPA is also taking comment on whether, if National LEV were not found to be in effect until after model year 1997 had already begun, manufacturers should still comply with National LEV standards for the 1997 model year.

<sup>14</sup>EPA is requesting comment on whether, in light of potential changes in requirements for agency analyses prior to rulemaking, manufacturers should also include a commitment not to petition the Agency for any additional analyses of or revisions to the program, once it becomes effective.

Standards." With certain exceptions, any changes to the Stable Standards applicable to vehicles produced for model years covered by the National LEV rule would allow the auto manufacturers to opt out of the National LEV program. The types of changes to the Stable Standards that would *not* allow a manufacturer to opt out are changes that would harmonize comparable federal and California standards, changes that do not make a standard more stringent, and changes made without vehicle manufacturers' objections.

The Agency believes that the appropriate Stable Standards fall into two categories: (1) those core standards, procedures, and requirements of the National LEV program that manufacturers would not have to meet but for their voluntary commitment to comply with that program, and (2) certain additional standards and requirements where the technical indicators or the timing of candidate revisions make it unlikely EPA would act under its discretionary authority to increase program stringency. In balance, EPA believes that the low risk that EPA will act to increase stringency in these areas does not make the program unstable, while it gives the manufacturers greater clarity and certainty about their obligations once they have entered into the program, and the program is more stable as a result. The two categories of proposed Stable Standards will be discussed separately.

A manufacturer that voluntarily chooses to be bound by standards more stringent than EPA could impose (such as in the proposed National LEV standards) should, in all fairness, only be required to comply with future changes to these standards if it so chooses. If EPA does not have authority to impose more stringent requirements, EPA does not believe it would be appropriate for it to have unilateral authority to change such requirements. Therefore, to protect the reasonable expectations manufacturers will hold when they opt into the voluntary standards of the National LEV program, it is reasonable to allow manufacturers to opt out if there are changes in these voluntary standards.

Consistent with this principle, EPA proposes that the first category of Stable Standards includes the following core National LEV program elements: [1] the TLEV, LEV, ULEV and ZEV tailpipe emission standards (i.e., the "LEV standards"); [2] use of the Federal Test Procedure (FTP), including California phase II gasoline, for determining compliance with the LEV standards; [3] the NMOG fleet average standards; [4]

banking and trading provisions used to meet the NMOG average or the five percent cap on sales of TLEVs and Tier 1 vehicles in the OTR from model year 2001 on; and [5] requirements for on-board diagnostics systems that meet California's OBD phase II requirements.

Inclusion of the numerical standards in this category of Stable Standards is justified because the LEV standards and the NMOG fleet average standards (together with the associated banking and trading provisions) are more stringent than current federal Tier 1 tailpipe emission standards; the benefits associated with this greater stringency are the foundation on which both the OTC LEV and National LEV programs were built. The basis for including the OBD II requirements in the first category of Stable Standards is the greater stringency of California OBD II in the key areas of catalyst deterioration, engine misfire, and evaporative emission system leak detection.

The Agency proposes to include the FTP and the test fuel in the Stable Standards because they are necessary to determine compliance with the numerical standards. The Agency is conducting a parallel effort to review the FTP as required by Section 206(h) of the Clean Air Act, which has implications for the Stable Standards. On February 7, 1995, EPA published a notice proposing certain modifications to the "conventional" FTP, the addition of a new "supplemental" FTP (or SFTP) incorporating "off-cycle" driving conditions (driving not covered by the conventional FTP driving cycle), and new "off-cycle" emission standards (60 FR 7404). The proposal reflected an unprecedented level of resources and input by the vehicle manufacturers and the California Air Resources Board. The Agency is currently evaluating comments on the February proposal and anticipates taking final action to revise the FTP in October, 1995. EPA believes that CARB will take consistent and coordinated action shortly thereafter.

EPA believes that the appropriate test procedure for use in determining compliance of National LEV vehicles with the LEV standards (and thus, for inclusion as a Stable Standard) is the conventional FTP as modified by the imminent final revised FTP rulemaking. The Agency's understanding is that the vehicle manufacturers acknowledge and support this viewpoint. Thus, today's EPA proposal places the FTP among the Stable Standards, but with the clear exception that any modifications to the conventional FTP made under the statutory obligation of 42 U.S.C. § 7525(h) will not trigger an off-ramp opportunity for the vehicle

manufacturers. Subsequent modifications to the conventional FTP executed under EPA's discretionary authority would afford the manufacturers an off-ramp, subject to the conditions stated elsewhere in this notice.

The final revised FTP rule may also include "off-cycle" emission standards or a Supplemental FTP. The Agency is proposing to include the off-cycle standards and SFTP in the set of Stable Standards, but in the second category of such standards, to be discussed next.

In addition to the core Stable Standards just described, EPA is proposing a second category of non-core Stable Standards consisting of the following elements of the federal motor vehicle emission control program: [1] any "off-cycle" emission standards, associated test procedures and implementation schedules promulgated by EPA under Section 206(h) of the Clean Air Act; [2] the existing federal program for control of on-board refueling vapor recovery (ORVR), including the test procedures, test fuel, standards, and implementation schedules; [3] the existing cold temperature carbon monoxide (Cold CO) program effective through model year 2000, including the Cold CO test procedure, test fuel, and standards; and [4] the existing federal evaporative emissions control program, including the emissions standards, test procedures, and implementation schedules. The Agency has independent authority to impose or modify these standards and requirements. Nevertheless, EPA believes it is appropriate to include them as Stable Standards. This would provide increased certainty for manufacturers that they can produce a single version of each vehicle nationwide to comply with all applicable requirements. This increased certainty should provide manufacturers added incentive to opt into the National LEV program without making the program unstable. In reaching this conclusion, EPA evaluated each program element on a case-by-case basis, both for the timing of potential future action to revise that program element and for the technical framework that might prompt EPA into such action. As noted previously, EPA anticipates final action to promulgate off-cycle emission standards and an associated procedure by October 31, 1995. If adopted, this proposal would add a significant new set of tailpipe emission requirements, phased in over model years 1998 through 2001. Conforming vehicles, which could serve as the basis for evaluating the sufficiency of EPA's final off-cycle requirements, will not

penetrate the fleet in significant numbers until the end of the proposed National LEV program period. The Agency has no technical basis at this time to conclude that an identified source of off-cycle emissions will go unregulated as a consequence of the final off-cycle rule. In the limited case where some form of high-impact, unregulated off-cycle emissions behavior were to be subsequently identified, EPA could still choose to promulgate new off-cycle regulations; the leadtime required for promulgation of new rules might push the first year of feasible implementation for such revisions past the period of the National LEV rule. Even if an earlier rule seemed practical, EPA could nonetheless choose to proceed, recognizing the possibility that such action might prompt manufacturers to opt out of the National LEV program.

The Agency anticipates that CARB will act in the near future to finalize its own off-cycle requirements, consistent with EPA's actions except for the stringency of the off-cycle standards. EPA's understanding is that the vehicle manufacturers have volunteered to meet whatever off-cycle FTP requirements California adopts, even if they are of greater stringency than the federal requirements. On this basis, EPA would propose to amend the first (core) category of Stable Standards to include the new CARB off-cycle requirements, justified on the basis that the vehicle manufacturers would be volunteering to meet more stringent standards as part of the National LEV program.

The situation with the federal On-board Refueling Vapor Recovery (ORVR) program is similar to the off-cycle standards and procedures, except that this rule has been finalized (59 FR 16262). The ORVR phase-in for LDVs begins in model year 1998 and ends for LDTs in model year 2003, so the availability of technical information from conforming in-use vehicles will likewise occur, at best, near the end of the National LEV program. Agency staff finalized the recent ORVR rule based on the best currently available technical information, and with no indication of significant technical shortcomings or unregulated refueling emissions that would foreshadow the need for imminent, more stringent ORVR rulemaking.

For Cold CO, EPA has a statutory obligation to revisit the Cold CO standard under Section 202(j) of the Clean Air Act, and to make changes, if necessary, effective with model year 2001. Given the stringency of current standards, progress in reducing CO levels, and the leadtime required for

promulgating new rules, EPA does not believe it will be necessary to revisit the Cold CO standard prior to the statutorily mandated time, at which point, Cold CO would no longer be included as a Stable Standard.

The final set of requirements proposed for inclusion in the second category of Stable Standards is the federal evaporative emissions control program, modified to specify California test fuel and test temperature as explained in Section VI.B.2. Final evaporative emission regulations were promulgated by EPA on March 24, 1993 (58 FR 16002). A direct final rule promulgating a set of technical amendments to that rule (including amendments designed to harmonize federal and CARB evaporative emissions requirements) was published on August 23, 1995 (60 FR 43880). Based on the March 1993 rule, the first new conforming vehicles have already been certified for model year 1996, and phase-in of the requirements will be completed in model year 1999. As with the ORVR final rule, EPA believes that the March 1993 evaporative emissions final rule, together with the recently published technical amendments, represents the best technical information available and an appropriate level of stringency for the federal requirements, and that short-term actions to increase the stringency of these requirements are not necessary.

With the proposed Stable Standards, EPA cannot and does not propose to forego any mandatory rulemaking activity, nor even to preclude discretionary activity, related to the listed program elements. Rather, EPA is proposing that if it takes discretionary action to increase the stringency of certain program elements and the change does not harmonize federal with California requirements, the manufacturers *may* take discretionary action to remove themselves from the voluntary program. The Agency believes that changes to the proposed Stable Standards applicable to the model years of the National LEV program are likely to be technical amendments that do not impact program stringency, actions to harmonize with California, or actions where the vehicle manufacturers agree with EPA's judgment that the change is appropriate. Thus, EPA finds it unlikely that the proposed Stable Standards would trigger an opportunity for manufacturers to opt out of the program or create instability in the program.

EPA seeks comment on whether each proposed Stable Standard is appropriate or whether one or more proposed Stable Standards should not be included as such. If EPA were likely to change a

Stable Standard, then the National LEV program would probably be unstable and it would be difficult to find that OTC States did not need to adopt OTC LEV as a backstop. Thus, EPA also seeks comment on whether the proposed Stable Standards are justifiably considered stable on a technical basis.

Changes to those portions of the existing requirements not cited in the above itemization of the proposed Stable Standards (and the parallel list incorporated in Section 86.1705 of the proposed National LEV regulations) would not trigger an off-ramp opportunity for the manufacturers. For example, EPA believes it must have the option to guarantee attainment of the stringency of the requirements already in force (as opposed to increasing the stringency of those requirements) without providing manufacturers the opportunity to opt out of the National LEV program. Thus, the Agency believes that the emissions durability program and defeat device requirements, which are designed to ensure that vehicles actually comply with the emissions standards over their useful life, should not be included in the Stable Standards.

The importance of achieving the predicted stringency for elements of the program is particularly important where the standards or procedures have been newly promulgated. The Agency must have the ability to modify the durability program to detect deterioration or component durability shortcomings of new designs introduced by manufacturers to meet these new requirements, and to prevent devices that intentionally circumvent the intended emissions targeted by those new requirements. In the evaporative emissions area, for example, EPA noted in the March 1993 final rule that it could not yet anticipate the penetration of pressurized fuel tank designs in response to the new evaporative requirements; such systems present the possibility of failure modes in the evaporative control system that would be most efficiently addressed not through emissions recalls, but through changes to the component durability program. Such changes would not allow manufacturers to opt out of National LEV.

EPA is proposing that it could make the following types of changes to the Stable Standards without providing an opportunity for auto manufacturers to opt out of the program: changes to harmonize the federal standards with the comparable then-current California standard, changes that do not increase stringency, and changes to which manufacturers do not object. If manufacturers need changes to existing

regulations because of minor problems that arise during implementation, EPA could correct those problems either because the technical amendment would not affect stringency or because manufacturers did not object to the change. EPA also takes comment on whether the ability to make the specified types of changes would minimize some of the possible drawbacks of specifying non-core requirements as Stable Standards. For example, if it were determined later that additional environmental benefits could be achieved at minimal cost by modifying the "off-cycle" FTP standards for TLEVs, LEVs or ULEVs, EPA could add those environmental benefits to National LEV provided that California changed its regulations.

EPA is also taking comment on whether other types of changes should not provide an opportunity to opt out of the program, particularly if non-core standards are specified as Stable Standards. For example, rather than trying to determine whether stringency is affected by technical amendments necessary to make the implementation-related adjustments inevitably needed in a new regulatory program (if, for example, adjustments are needed for the recently promulgated ORVR regulations), perhaps EPA should be able to make any type of change for the first year or two that a new regulatory obligation is in effect. Another option might be to exclude specific program sub-elements from the Stable Standards because the Agency might subsequently conclude there are compelling reasons for EPA to increase the stringency of those sub-elements in the model years of the National LEV program. If the sub-elements were part of the broader list of Stable Standards, such action might destabilize the program by allowing manufacturers to opt out. The Agency solicits comments on whether the proposed list of Stable Standards includes any such program sub-elements and whether EPA should act in a final National LEV rule to except them from the Stable Standards.

#### (2) OTC States' Failure to Meet or Keep Their Commitments

The second condition allowing manufacturers to opt out is a failure of any OTC State to meet its commitment (as finally agreed upon by the OTC States and auto manufacturers) regarding adoption or retention of a section 177 program that does not allow compliance with National LEV as a full alternative to compliance with the state program. The manufacturers and the states have not yet reached agreement on the exact content and form of such a state commitment. Details that have

yet to be resolved concern what the OTC States will commit to do regarding adoption or retention of section 177 programs (both LEV and ZEV requirements) and the timing of any agreed upon actions. Possible instruments for such state commitments include a commitment in a SIP revision, a consent decree, a legislative resolution, a letter from the State Attorney General, an Executive Order from the Governor, signature of an MOU with the manufacturers, or any package of several of these instruments. Since National LEV is intended to provide an alternative to OTC LEV, manufacturers should not be bound to stay in the National LEV program if an OTC state requires them to comply with a section 177 program contrary to the terms of the final agreement. This offramp not only gives manufacturers recourse if a state does not fulfill its part of the bargain, but also encourages states to fulfill their commitments by setting a serious penalty for failure. EPA will provide further notice on state commitments when more information is available.

#### b. Effective Date of Opt-Out

To opt out of the program, a manufacturer would follow the same notification procedure used to opt in, additionally specifying the condition allowing opt-out. EPA is proposing that manufacturers would have to decide whether to exercise their option to opt out within 60 days of the occurrence of the condition triggering opt-out. This would provide greater program stability by ensuring that if no manufacturer takes an available opt-out within a certain period of time, that option expires and the program will continue, barring another offramp being triggered. EPA requests comment on whether an amount of time to allow for exercise of an opt-out option should be specified and, if so, what the length of time should be.

An opt-out would not become effective if, within 60 days of receipt of the opt-out statement, the Administrator were to find that the condition cited by the manufacturer had not actually occurred. Then, if a dispute between a manufacturer and EPA over the existence of a condition allowing opt-out had to be settled through litigation, EPA could continue to enforce the National LEV program while a court was in the process of resolving the dispute.

Unless EPA were to find that the opt-out condition had not occurred, the effective date of an opt-out would depend on the condition authorizing the opt-out. The effective date of the opt-out would determine when the manufacturer would no longer have to

comply with the National LEV program and instead would become subject to Federal Tier 1 tailpipe emissions and related standards and state section 177 programs. EPA is considering three major factors in determining when opt-outs should become effective. The first factor is the burden that different effective dates place on manufacturers, in terms of complying with emissions standards. A second factor is the effect of different opt-out dates on emissions reductions. Third, EPA will consider the extent to which different effective dates provide program stability by providing disincentives for EPA or the OTC States to trigger an offramp.

If EPA were to modify one of the specified Stable Standards or requirements over the objection of a manufacturer, EPA is proposing that opt-out would be effective for the first model year to which the modified standard applied. Similarly, if after promulgation of the final rule an OTC State were to adopt a state motor vehicle program under section 177 in a way that violated a commitment it made, opt-out would be effective for the first model year to which the state regulations applied. EPA believes this approach achieves the best balance between preservation of emissions reductions and minimization of burden on manufacturers. This approach would ensure that there is no loss of emissions reductions before the condition triggering an opt-out actually imposed a compliance burden on the manufacturers. Also, depending upon the effective date of the regulatory change made by EPA or the state, delaying opt-out until that date may provide some additional time for states without backstops in place to adopt section 177 programs.<sup>15</sup> Yet this approach avoids placing any additional burden on the manufacturers because as soon as manufacturers would need to comply with the changed standard or the section 177 program, they would no longer have to comply with National LEV. While this approach does not provide an additional deterrent to triggering an offramp, EPA believes the dissolution of the program and need to adopt and/or implement section 177 programs is a very significant deterrent.

EPA is also requesting comment on a range of alternative approaches to establishing the effective date of opt-outs that are allowed by an EPA change to Stable Standards or an OTC State failure to keep its commitment regarding a section 177 program. On one

<sup>15</sup> "Backstops" refers to OTC LEV programs that have been adopted by states but do not become effective as long as National LEV is in effect.

end of the spectrum, opt-out could become effective immediately upon trigger of the offramp. At the other end, EPA could make opt-out effective only when all states had ample time to adopt OTC LEV, or even had actually adopted OTC LEV. Another alternative would be to make opt-out effective beginning in the first model year following the calendar year in which EPA or the state acted, regardless of when the changed federal or state standards would apply. While this approach would result in higher emissions, this loss of emissions reductions from all states without backstops would provide a greater disincentive for either EPA or the OTR States to change the requirements. Still another alternative would be to make opt-out effective for the first model year three years after the calendar year in which EPA or the state acted, or the first model year to which the changed regulations applied, whichever is sooner. This approach could give most states without backstops sufficient time to adopt OTC LEV and thereby provide greater assurance that emissions reductions would not be lost. The Agency requests comment on these or related approaches.

### 3. Duration of Program

If manufacturers do not opt out of the program, the proposed regulations set an end date for the National LEV program that is tied to the date of EPA's promulgation of future standards. EPA is also taking comment on alternative end dates.

Under the proposed regulations, National LEV standards would remain in place at least through model year 2003 and possibly through model year 2006. If, by December 15, 2000, EPA has signed a final rule establishing new, mandatory tailpipe standards at least as stringent as National LEV that become effective in model year 2004, 2005 or 2006, then National LEV would remain in effect until those new standards became effective. If EPA did not issue regulations meeting those conditions, then National LEV would end in model year 2003. In that event, manufacturers would be required to meet federal Tier 1 standards starting in model year 2004 in any state where they were not required to meet California or OTC LEV standards.

The OTC States and auto manufacturers have expressed support for this option. They believe it is important to have certainty regarding new federal standards sooner rather than later. This would enable manufacturers to design and plan future production and give states time to adopt OTC or California LEV if EPA did not

act by the specified date. The OTC States and auto manufacturers believe that imposing a hammer (i.e., return to Tier 1 standards nationwide in model year 2004) will force EPA to act in the specified timeframe to give the parties the certainty they feel they need.

EPA is also taking comment on having the National LEV program extend until the first model year in which manufacturers must meet new, mandatory tailpipe standards at least as stringent as National LEV. This would not provide the incentive for EPA to issue such standards in the specified time period, but it would avoid the confusion and environmental harm that would occur if the nation were to go backwards from National LEV to Tier 1 standards in model year 2004. EPA also questions whether it is appropriate or necessary to address in this rulemaking the rulemaking schedule for Tier II standards, given that Congress has addressed this in section 202(i)(3) of the Clean Air Act, 42 U.S.C. § 7521(i)(3).

### *B. Voluntary Tailpipe and Related Standards and Phase-In*

#### 1. Emission Standards for Categories of National LEV Vehicles

The exhaust emission standards being proposed today for vehicle categories in the National LEV program are closely patterned after the California LEV emission standards. The proposed National LEV standards would apply to light-duty vehicles (LDVs), and the category of light-duty trucks under 6000 lbs Gross Vehicle Weight Rating (GVWR) (i.e., light light-duty trucks (LLDTs)).<sup>16</sup> Vehicles not in these categories would continue to be certified and tested under applicable federal regulations. Under the provisions of the proposed voluntary program, once in the program, manufacturers would have to certify all LDVs and LLDTs to one of five "vehicle emission categories," each of which has a unique set of emission standards. The least stringent set of standards that vehicles could be certified to is the current set of federal Tier 1 tailpipe standards. The Tier 1 standards include standards for exhaust emissions of NMHC, CO, NO<sub>x</sub>, and PM.

<sup>16</sup>The federal definitions of "light-duty vehicle" and "light light-duty truck" (40 CFR § 86.094-2) correspond to the California definitions of "passenger car" and "light-duty truck," respectively. In addition, both the federal and California regulations divide the truck emission standards into two categories based on identical loaded vehicle weights. Thus, California emission standards can be applied directly to the corresponding federal vehicle certification categories.

The remaining four sets of standards are as follows, in order of increasing stringency: TLEVs, LEVs, ULEVs, and ZEVs. Each of these four vehicle emission categories contains emission standards for NMOG, CO, NO<sub>x</sub>, HCHO, and PM.

For the reason stated below, EPA is proposing that the following federal Tier 1 standards apply to National LEV vehicles, in addition to the California exhaust emission standards described above: total hydrocarbon (THC) standard, 50,000-mile PM standard, and 100,000-mile PM standard for non-diesel vehicles. The CAA requires that, beginning in MY 1996, 100% of a manufacturer's fleet of vehicles complies with the federal Tier 1 emissions standards. It is clear that a vehicle certified to California TLEV, LEV, ULEV, or ZEV standards will meet the applicable Tier 1 emission standards for NMHC, CO, and NO<sub>x</sub>. However, the California program does not contain a THC emissions standard or a 50,000-mile PM standard, and the California 100,000-mile PM standard applies only to diesel vehicles.

Therefore, the California 100,000-mile PM standards, as adopted in the National LEV program, would apply to diesel vehicles only. Non-diesel vehicles covered by the National LEV program would be required to meet the Tier 1 100,000-mile PM emissions standard. In addition, all National LEV program vehicles would be required to meet the federal Tier 1 50,000-mile PM standard, and the federal Tier 1 THC emissions standard, since there are no comparable California standards.

The National LEV program would require compliance with these exhaust emissions standards, as well as compliance with a fleet average NMOG standard, which would be phased from MY 1997 through MY 2001. The program would initially apply to all vehicles produced and offered for sale in the OTR, beginning with MY 1997. Beginning in MY 2001, the program would apply to all vehicles produced and offered for sale in the rest of the nation (excluding California). Manufacturers would be allowed, but not required, to produce and offer for sale TLEVs, LEVs, ULEVs, and ZEVs outside the OTR prior to model year 2001.

The National LEV program would require manufacturers to comply with a fleet average NMOG standard, by producing and delivering for sale a combination of vehicle emission categories that, when averaged on a sales-weighted basis, meets a fleet average NMOG value for each model year that becomes increasingly stringent

through MY 2001 in the OTR. After MY 2000, a manufacturer would also have to meet the average NMOG standard for its fleet of LDVs and LLDTs sold in states outside the OTR (excluding California). Only vehicles subject to the National LEV program sold in the OTR would be counted towards a manufacturer's fleet average NMOG calculation during the MY 1997-2001 phase-in period. The fleet average NMOG standards are described more fully in Section III.B.3 below.

a. Certification Standards

The proposed voluntary program would establish emission standards with a structure similar to current federal Tier 1 regulations, in that there would be separate emission standards for LDVs and for LDTs. Current federal regulations divide the LDT vehicle category into two subcategories, each of

which is further divided into subcategories. Light light-duty trucks (LLDTs) are those LDTs less than or equal to 6000 lbs GVWR, and heavy light-duty trucks (HLDTs) are those LDTs greater than 6000 lbs but less than or equal to 8500 lbs GVWR. The National LEV program proposes standards only for the LLDTs, therefore the HLDT category would continue to be certified to the applicable Tier 1 standards. Emission standards proposed today that apply to LLDTs are divided into two sets. One set, which is identical to the standards for LDVs, would apply to LLDTs up through 3750 lbs loaded vehicle weight (LVW), and another slightly less stringent set would apply to LLDTs between 3750 and 5750 lbs LVW. Also consistent with current federal and California regulations, separate sets of standards are proposed for the vehicle's intermediate useful life (5 years or

50,000 miles, whichever occurs first) and full useful life (10 years or 100,000 miles, whichever occurs first).

As noted above, there would be five vehicle emission categories for vehicles under the voluntary program, ranging in stringency from the current federal Tier 1 vehicles to ZEVs. The Tier 1 standards have already been codified in the current federal regulations with a phase-in schedule that requires 100 percent of production of LDVs and LLDTs to meet the Tier 1 standards by the 1996 model year. The proposed TLEV, LEV, ULEV and ZEV certification standards for LDVs and LLDTs up through 3750 lbs LVW are shown in Table 1 and those proposed for LLDTs from 3750 to 5750 lbs LVW are shown in Table 2. As noted above, the National LEV particulate standards would apply only to diesel vehicles.

TABLE 1.—INTERMEDIATE AND FULL USEFUL LIFE STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT LIGHT-DUTY TRUCKS TO 3750 LBS LVW

Vehicle useful life (miles)	Vehicle emission category	NMOG	CO	NO <sub>x</sub>	HCHO	PM (diesel only)
50,000 .....	TLEV .....	0.125	3.4	0.4	0.015	.....
	LEV .....	0.075	3.4	0.2	0.015	.....
	ULEV .....	0.040	1.7	0.2	0.008	.....
100,000 .....	TLEV .....	0.156	4.2	0.6	0.018	0.08
	LEV .....	0.090	4.2	0.3	0.018	0.08
	ULEV .....	0.055	2.1	0.3	0.011	0.04

TABLE 2.—INTERMEDIATE AND FULL USEFUL LIFE STANDARDS (G/MI) FOR LIGHT LIGHT-DUTY TRUCKS FROM 3751 LBS LVW TO 5750 LBS LVW

Vehicle useful life (miles)	Vehicle emission category	NMOG	CO	NO <sub>x</sub>	HCHO	PM (diesel only)
50,000 .....	TLEV .....	0.160	4.4	0.7	0.018	.....
	LEV .....	0.100	4.4	0.4	0.018	.....
	ULEV .....	0.050	2.2	0.4	0.009	.....
100,000 .....	TLEV .....	0.200	5.5	0.9	0.023	0.08
	LEV .....	0.130	5.5	0.5	0.023	0.08
	ULEV .....	0.070	2.8	0.5	0.013	0.04

The proposed voluntary standards also include two-tiered NMOG standards for flexible-fuel and dual-fuel vehicles, based on California's approach to standards for these vehicle types.<sup>17</sup> Flexible- and dual-fuel vehicles would have to certify both on the alternative fuel and on gasoline. When certifying on an alternative fuel, these vehicles would have to meet the intermediate and full useful life emission standards for TLEVs, LEVs or ULEVs laid out above. Consistent with California's

methodology, the measured NMOG mass emissions would be adjusted by a Reactivity Adjustment Factor (RAF) for the given type of alternative fuel before being compared to the applicable emission standard. Determination of the applicable RAF is discussed later in section III.B.5.

When certifying on gasoline, flexible-fuel and dual-fuel vehicles would have to meet the next higher (less stringent) category of NMOG standards than the standards the vehicle certified to on an alternative fuel. However, the vehicle would have to meet all other standards (NO<sub>x</sub>, CO, etc.) when operated on gasoline that it certified to on an alternative fuel. For example, a flexible-

fuel vehicle that certified to ULEV standards on an alternative fuel would have to certify to the LEV NMOG standard and ULEV CO, NO<sub>x</sub>, PM, and HCHO standards when operated on gasoline. The same principle would hold true for determining applicable in-use standards for flexible-fuel and dual-fuel vehicles. This would allow manufacturers to optimize the emission control system for the alternative fuel rather than for gasoline. Consistent with California, for purposes of the NMOG fleet average standard discussed below, such vehicles would be included based on their NMOG certification levels on the alternative fuel. There is, however, no requirement that such vehicles

<sup>17</sup> Flexible-fuel vehicles are those that can operate on either of two different fuels or any combination of those fuels, while dual-fuel vehicles can operate on either of two different fuels but not on combinations of those fuels.

operate on alternative fuels in-use, except as is already provided for in the clean fuel fleet program.

b. In-Use Standards

The proposed National LEV program explicitly adopts California's intermediate in-use standards, including intermediate in-use compliance standards for LEVs and ULEVs for the 1997 and 1998 model years that are less stringent than the certification standards for such vehicles.<sup>18</sup> These less stringent standards apply for this short period after introduction of the certification standards to allow manufacturers to gain in-use experience with vehicles certified to LEV or ULEV standards. Starting with the 1999 model year, vehicles must comply in-use with the certification standards described above. Because California is in the midst of transition to a LEV program, a straight carryover of their in-use approach implies adoption of less stringent in-use standards for LEVs and ULEVs through the 1998 model year. These standards apply to the intermediate useful life of the vehicles; compliance with in-use standards beyond the intermediate useful life is not required for LEVs and ULEVs through the 1998 model year. The in-use standards for vehicles certified under the voluntary National LEV program would apply to vehicles sold both within and outside the OTR. The applicable in-use standards for TLEVs would be equivalent to the intermediate and full useful life certification standards starting with the 1997 model year, whereas for LEVs and ULEVs the certification standards would not apply in-use until after the 1998 model year. The proposed intermediate in-use standards for LDVs and LLDTs to 3750 lbs LVW are shown in Table 3 and the proposed intermediate in-use standards for LLDTs from 3751 to 5750 lbs LVW are shown in Table 4.

TABLE 3.—INTERMEDIATE USEFUL LIFE IN-USE STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS TO 3750 LBS LVW

Vehicle emission category	NMOG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	HCHO (mg/mi)
LEV .....	0.100	3.4	0.3	0.015
ULEV ....	0.058	2.6	0.3	0.012

<sup>18</sup> California's less stringent in-use standards for TLEVs expired after the 1995 model year. TLEVs must therefore meet certification levels (intermediate and full useful life) in-use at the start of the proposed National LEV program.

TABLE 4.—INTERMEDIATE USEFUL LIFE IN-USE STANDARDS (G/MI) FOR LIGHT-DUTY TRUCKS FROM 3751 LBS LVW TO 5750 LBS LVW

Vehicle emission category	NMOG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	HCHO (mg/mi)
LEV .....	0.128	4.4	0.5	0.018
ULEV ....	0.075	3.3	0.5	0.014

2. Non-Methane Organic Gases (NMOG) Fleet Average Standards

As stated earlier, the proposed voluntary program would also require manufacturers to meet an increasingly stringent fleet average NMOG standard. The fleet average NMOG standards and schedule for LDVs and LLDTs in the OTR are shown in Table 5. The fleet average NMOG values shown in the table would apply, on a manufacturer-by-manufacturer basis, to vehicles sold in the OTR from MY 1997 until the end of the National LEV program. The NMOG values would also become applicable to vehicles sold in every state outside the OTR, except California, beginning with the 2001 model year. (Low volume manufacturers, as defined in this proposal, would be exempt until model year 2001, as discussed more fully in Section III.D below.)

TABLE 5.—FLEET AVERAGE NMOG EXHAUST EMISSION REQUIREMENTS (G/MI) FOR LDV AND LLDT SOLD IN THE OTR

Vehicle type	Model year	Fleet Average NMOG
LDV and LLDT (0–3750 LVW).	1997 .....	0.200
	1998 .....	0.200
	1999 .....	0.148
	2000 .....	0.095
	2001 and later .	0.075
LLDT (3751–5750 LVW).	1997 .....	0.256
	1998 .....	0.256
	1999 .....	0.190
	2000 .....	0.124
	2001 and later .	0.100

The decreasing fleet average values were derived by multiplying certification emissions levels for various categories of vehicles by achievable implementation rates for each vehicle category. The NMOG values specified are equivalent to the production of 40% TLEVs in MYs 1997–1998, 40% TLEVs and 30% LEVs in MY 1999, 40% TLEVs and 60% LEVs in MY 2000, and 100% LEVs in MY 2001. Manufacturers will be required to meet separate NMOG averages for each of the two vehicle groupings shown in Table 5, i.e., a fleet average will be calculated both for LDVs

and LLDTs from 0–3750 LVW and also for LLDTs from 3751–5750 LVW. Also, as discussed below, beginning in MY 2001, manufacturers will have to meet separate NMOG averages for two regions: states within the OTR and states (except California) outside the OTR.

Manufacturers would be able to comply with the fleet average NMOG standards by producing and delivering for sale any combination of vehicles certified to the Tier 1, TLEV, LEV, ULEV, or ZEV levels such that the overall LDV and LLDT fleet met the required fleet average values. A sales-weighted fleet average would be calculated based on the intermediate useful life (5 years, 50,000 mile) certification NMOG standards of the vehicle categories. A manufacturer would multiply the NMOG emission standard for each certification category by the number of that type of vehicle that the manufacturer produced and delivered for sale, add these products to the Hybrid Electric Vehicle (HEV) contribution factor (discussed in section IV.C.8), and then divide by the total number of vehicles produced and delivered for sale by the manufacturer.

Because vehicles sold to locations in California and other countries, including Canada and Mexico, are excluded from the National LEV program, and because fleet average NMOG calculations are based on regional limits described in the following section, manufacturers are required to obtain data on the location of vehicle sales to demonstrate accurate fleet average NMOG calculations. However, to ease the burden on manufacturers of tracking vehicles to the end user, manufacturers need only track vehicles to the location where the completed vehicle or truck is purchased, otherwise known as the point of first retail sale. In most cases, this will be the sale from the manufacturer to the dealer. In cases where the end user purchases the completed vehicle directly from the manufacturer, the location of the end user is the point of first retail sale. Vehicle sales data pertaining to vehicles already shipped to a point of first retail sale is also known as first delivery information.

An additional proposed limitation on the vehicles manufacturers may include in their fleet average NMOG calculations involves those vehicles sold in the OTR to meet the requirements of the Energy Policy Act (EPA). EPA is including this proposal at the request of the OTC states and auto

manufacturers. As proposed, manufacturers would not include in their National LEV fleet calculations any alternative-fueled vehicles that have been purchased by OTR State governments pursuant to EPA's Act guidelines if the governments have reported their purchases of those vehicles to the respective manufacturers no later than February 1 of the calendar year following the end of a given model year. Reporting should consist of a letter from the government official responsible for the EPA's Act purchases to the manufacturer representative listed in that manufacturer's application for certification. Failure of the government entities to report this data correctly would allow the manufacturers to include these vehicles in their fleet average NMOG requirements. EPA is taking comment on the method and timing for these government reports. EPA is also taking comment on whether Federal government EPA's Act purchases should also be excluded from manufacturers' NMOG fleet average calculations, whether it is feasible for information on Federal purchases to be reported to manufacturers, and if so, through what mechanism.

### 3. Fleet Average NMOG Credit Program

As part of this voluntary program, EPA is proposing to allow manufacturers to use a market-based approach to the fleet average NMOG requirements for LDVs and LLDTs through averaging, banking, and trading NMOG credits and debits. This would provide an incentive for early emission reductions and allow manufacturers greater flexibility in meeting the overall fleet average targets. Thus, manufacturers would produce the same level of emissions reductions at less cost. Both this overall approach and most of the specifics of program implementation are modeled on California's trading program.<sup>19</sup>

Fleet average NMOG credits and debits would be calculated in the same manner as under the California regulations. Credits and debits would be calculated in units of g/mi as the difference between the required fleet average NMOG and the fleet average NMOG achieved by the manufacturer, multiplied by the total number of vehicles the manufacturer produced in a given model year and delivered for sale in the applicable regions, including ZEVs and HEVs. A manufacturer would

generate credits in a given year if its fleet average NMOG value was lower than the fleet average NMOG requirement for that model year. Debits would be incurred when a manufacturer achieved a fleet average NMOG above the NMOG required for that model year. A manufacturer's balance for the model year would equal the sum of the credits earned and debits incurred.

As under the California regulations, the separate fleet average NMOG standards for the two different vehicle classes would require that manufacturers make separate fleet average NMOG value calculations for each class. Class A represents the LDVs and LDTs 0–3750 lbs. LVW, and Class B represents the LDTs 3751–5750 lbs. LVW. However, once calculated, fleet average credits and debits are not specific to these classes.

EPA is also proposing to include geographic limits on both calculation of fleet average NMOG values and offset of debits with credits. Prior to MY 2001, the fleet average NMOG standard would apply only to vehicles produced and delivered for sale within the OTR. To ensure that the voluntary program continues to produce emissions reductions comparable to those that would be achieved by OTC LEV in the OTR, from MY 2001 on, credit and debit averaging would be conducted in two separate regions: the OTR and the remaining 37 States, excluding both California and the OTR.<sup>20</sup> The NMOG average, credits, and debits for a regional fleet would be based on vehicles produced and delivered for sale in each region, and each regional fleet average would have to meet the applicable NMOG standard independently.

Therefore, manufacturers would be required to calculate four separate fleet average NMOG values for four separate averaging sets: Class A in the OTR, Class A in the 37 States, Class B in the OTR, and Class B in the 37 States. Each manufacturer would have a separate balance for each of the two regions, which would be calculated by summing all of the manufacturers' credits and debits within that region.<sup>21</sup> Only credits remaining after calculating the manufacturer's balance for the region

would be available for trading and they could be traded only in that region.

As under the California regulations, the proposed National LEV standards provide that manufacturers may incur a debit balance in a given region and model year, but the manufacturer must equalize any emission debits by the end of the following model year. Manufacturers would be able to offset debits by (1) using credits generated by that manufacturer in a previous year (discounted if appropriate), (2) earning an equal amount of emission credits the year after incurring the debit, or (3) presenting to EPA an equal amount of credits acquired from another manufacturer. However, a manufacturer would have to use any available banked credits to offset debits in the year those debits were generated, rather than carrying over to the next model year both credits and debits for the same region. The cause of action for failure to equalize debits would be deemed to accrue at the end of the time period for equalizing debits.

The voluntary standards would also incorporate the California approach for discounting unused credits over time. Discounting helps to protect the equivalency of credits earned and used in different years, to account for less stringent in-use requirements, and to prevent excessive accumulation. Over time, vehicles are likely to improve in their durability and performance due to a longer development period and experience gained from prior model years. Thus, emission reductions from earlier vehicles may be less than those from the same type of vehicle later on. Under the proposed regulations, unused credits that are available at the end of the second, third and fourth model year after the model year in which the credits were generated would be discounted to 50%, 25%, and 0% of the original value of the credits, respectively. For example, if a manufacturer generated 200 credits in MY 1997, those credits would retain their full value in MY 1998. However, in MY 1999, the credits would be discounted by 50%, so the manufacturer would hold only 100 credits. In MY 2000, the manufacturer would hold 50 credits, and in MY 2001, the credits would have no value.

EPA is proposing to allow manufacturers to generate credits in the 37 States prior to model year 2001 for use in the 37 States. This would provide manufacturers added flexibility. However, EPA is concerned about the possibility that this might generate windfall credits. Windfall credits are credits that are generated without real emission reductions being made by the manufacturer because the manufacturer

<sup>19</sup> The National LEV regulations would not preclude generation of excess credits under National LEV for use in broader trading programs if such programs are developed in the future. Excess credits would be those credits left after a manufacturer met the NMOG average.

<sup>20</sup> For administrative convenience, EPA is proposing to include the entire state of Virginia in the OTR trading region, even though only northern Virginia is in the OTR. EPA is taking comment on whether only the portion of Virginia in the OTR should be included in the OTR trading region.

<sup>21</sup> Credits or debits earned or incurred in the National LEV program would not be interchangeable with credits or debits earned or incurred in California because the National LEV and California LEV programs are separate.

would have made those production choices regardless of the incentive of earning credits. Given that such credits do not represent emission reduction benefits over the status quo, they should not be used to offset later deficits. EPA requests comment on these issues.

Compliance for vehicles subject to the fleet average NMOG standards proposed in this regulation will be evaluated in two ways. First, compliance of an individual vehicle with its certified NMOG tailpipe emissions levels would be determined and enforced in the same manner as compliance with any other emission standard. Each vehicle must meet its certified emission standards as determined and enforced through certification, Selective Enforcement Audit, in-use testing, and, for certain vehicles, testing performed under some California assembly-line and in-use testing programs. Second, manufacturers must show that they meet the applicable NMOG fleet average standards. Manufacturers could either report a fleet average NMOG level meeting the applicable fleet average NMOG standard or present to EPA enough credits to offset any debits by the end of the model year following the model year in which the debits were incurred.

The proposed fleet average NMOG credit program would be implemented and enforced through the certificate of conformity, which the manufacturer would be required to obtain under proposed section 86.1721-97 for all vehicles prior to their introduction into commerce. The certificate for each vehicle would be conditioned on each vehicle meeting the applicable National LEV tailpipe and related emission standards, and on the manufacturer demonstrating compliance with the applicable NMOG fleet average standard. If a manufacturer failed to meet both of these conditions, the vehicles causing the NMOG fleet average violation would be considered not covered by the certificate applicable to the engine family. EPA could then assess penalties on an individual vehicle basis for sale of vehicles not covered by a certificate.

If debits are not equalized within the specified time period, EPA would calculate the number of noncomplying vehicles by dividing the total amount of debits for the model year by the fleet average NMOG requirement applicable for the model year and averaging set in which the debits were first incurred. In the case where both averaging sets are in debit, any applicable credits would first be split between the sets. Then, noncompliance calculations would begin using the revised debit values.

Each noncomplying vehicle would be deemed to be in violation of the conditions of its certificate. EPA would determine these vehicles by designating vehicles in those engine families with the highest certification NMOG emission values first and continuing until a number of vehicles equal to the calculated number of noncomplying vehicles as determined above is reached. EPA may void *ab initio* the certificates of conformity for nonconforming vehicles.

If the Agency determines that an enforcement action is appropriate, EPA would have some discretion in choosing the appropriate penalties. The sale of vehicles not covered by a certificate is a violation under CAA section 203(a). Civil penalties in the amount up to \$25,000 per vehicle are possible under section 205 of the Act. The applicable penalties are listed in section 205(a) of the Act. The Agency would consider appropriate mitigating factors.

EPA is taking comment on an additional enforcement requirement associated with this trading program. Specifically, if a manufacturer failed to equalize emission debits by the end of the year following the year the debits were generated, that manufacturer would not only be responsible for any of the appropriate penalties as discussed above, but would also be required to make up the debit balance, which represents emissions exceedances. Under the California program, once penalties are imposed for holding debits, those debits are wiped out and the manufacturer's credit balance returns to zero. However, requiring debits to be made up, notwithstanding penalties, would ensure that the environment is not harmed by an exceedance. EPA requests comment on whether making up emissions exceedances should be required automatically, whether EPA should have discretion to require that exceedances be made up, or whether emissions exceedances should not be required to be made up.

When credits are transferred between manufacturers, EPA proposes to make both the provider and receiver of credits potentially liable for any credit shortfall resulting from the trade, except in cases where fraud is involved. The certificates of both parties issued for vehicles involved in the violating trading transaction could be void *ab initio* if the manufacturers fleet average NMOG values exceed the federal standard as a result of the credits shortfall. This proposal differs from California's fleet average NMOG program, which focuses only on the party reporting a shortfall, reflecting California's confidence in the

validity of reported credits. However, holding both parties potentially liable provides the same manufacturer accountability that is incorporated in the other federal mobile source credit programs. Such a policy would provide additional incentive for credit providers and receivers to take the necessary steps to ensure the integrity of the transactions, and to place contractual liability on the appropriate party. EPA is also taking comment on limiting potential liability in the same manner as California's program does.

Manufacturers would be required to prepare an annual report after the end of each model year to demonstrate compliance with the applicable fleet average NMOG standards. The report would have to be submitted no later than May 1 of the calendar year following the end of the given model year. Manufacturers would also be required to report any credit transactions for the year as part of the annual report. However, EPA is also taking comment on a modified approach to reporting credit transactions, which would require parties to report a trade within 30 days of the transaction. The California program requires immediate reporting of trades, but EPA believes a 30 day reporting period would be more practical. The purpose of a 30 day reporting requirement would be to allow a purchaser to contact EPA and verify that credits had not already been traded.

The integrity of the proposed fleet average NMOG credit program depends on accurate recordkeeping and reporting by manufacturers and effective tracking and auditing by EPA. If a manufacturer fails to maintain the required records, EPA could void the certificates for the affected vehicles *ab initio*. If a manufacturer violates reporting requirements, the manufacturer could be subject to penalties of up to \$25,000 per day, as authorized by section 205 of the Clean Air Act.

EPA intends to develop an electronic reporting mechanism that is similar to California's format. The format for reporting fleet average NMOG data will be detailed in a Dear Manufacturer letter from EPA after the final regulations have been published.

#### 4. Five Percent Cap on Sale of Tier 1 Vehicles and TLEVs

Today's proposal includes a limit on the number of Tier 1 vehicles and TLEVs produced and offered for sale in the OTR. Specifically, beginning in the 2001 model year, manufacturers would be able to offer Tier 1 vehicles or TLEVs for sale in the OTR only if the same engine families are certified and offered for sale in California in the same model

year. Additionally, the number of these vehicles would be limited on an industry-wide basis to 5% of the total number of new motor vehicles produced and offered for sale under the National LEV program in that model year in the OTR. This 5% cap would be administered and enforced using a credit trading system, which would allow manufacturers to redistribute the compliance burden between different manufacturers and over time, and thereby achieve industry-wide compliance at the least cost. The purpose of limiting the sales of Tier 1 vehicles and TLEVs is to give the OTR States additional assurance that the National LEV program will produce NO<sub>x</sub> emissions reductions equivalent to those that would flow from the OTC LEV program.

The concern about the equivalency of NO<sub>x</sub> emissions arises from the use of a fleet average NMOG standard. Manufacturers may meet the standard by producing and delivering for sale any combination of categories of vehicles resulting in a complying sales-weighted fleet average NMOG value. While this ensures that the fleet as a whole will meet a given NMOG value, it does not guarantee that the fleet will meet any particular average NO<sub>x</sub> value. NO<sub>x</sub> standards for the different certification categories do not vary in the same manner as the NMOG standards. While Tier 1 vehicles, TLEVs, LEVs and ULEVs all have different NMOG standards, Tier 1 vehicles and TLEVs have NO<sub>x</sub> standards of 0.4 g/mi, and LEVs and ULEVs have NO<sub>x</sub> standards of 0.2 g/mi. As a result, a fleet of Tier 1 vehicles, TLEVs, and ULEVs could have higher NO<sub>x</sub> emissions than a fleet of LEVs, even if the two fleets had the same NMOG average. The NO<sub>x</sub> emissions from Tier 1 vehicles and TLEVs, which are higher than from LEVs, would not be offset by lower NO<sub>x</sub> emissions from ULEVs, which are the same as from LEVs.

Both National LEV and OTC LEV have the potential to produce a range of total NO<sub>x</sub> emissions, depending on the vehicle mix chosen by the manufacturers. However, some parties have raised a concern that National LEV would present a greater potential for higher NO<sub>x</sub> emissions than would OTC LEV. This is because the lower final NMOG average standard under OTC LEV may make it more difficult for manufacturers to produce and offset the sale of Tier 1 vehicles or TLEVs with ULEVs in the later years of the program.

EPA does not believe the effect of the lower NMOG standard under OTC LEV is likely to be sufficient to affect the NO<sub>x</sub> equivalency of the two programs.

Based on the manufacturers' production projections, EPA believes that the number of Tier 1 vehicles and TLEVs produced after 2001 will be extremely low under either program, yielding an insignificant difference in NO<sub>x</sub> emissions compared to a fleet without those categories of vehicles.

Nevertheless, the OTC States and auto manufacturers have recommended the 5% cap provision to address the concern over NO<sub>x</sub> emissions, and EPA is proposing to include this recommendation in the National LEV rule. Limiting sales of Tier 1 vehicles and TLEVs to those engine families that are concurrently offered for sale in California encourages the same sales mix under National LEV and OTC LEV, preserving the relative emissions levels. Setting an industry-wide 5% cap on the number of Tier 1 vehicles and TLEVs produced and offered for sale under National LEV limits the exposure to increased NO<sub>x</sub> emissions on an absolute basis.

EPA analyses indicate that if manufacturers took full advantage of the 5% cap (i.e. they sold 5% Tier 1 vehicles every year), the passenger car and light-duty truck portion of the OTR emissions inventory in 2005 would increase by less than one half of one percent, which is not enough to change the conclusion that the National LEV program is equivalent to the OTC LEV program in the OTR.

EPA is taking comment on exempting low volume manufacturers, as defined in section IV.D, from meeting the 5% cap. EPA recognizes that these manufacturers may lack the flexibility in their product line that would allow them to adjust the makeup of their fleet to meet this requirement. EPA believes that the potential contribution of increased NO<sub>x</sub> emissions from these manufacturers would be insignificant. EPA wishes to take comment on this proposed provision, including whether additional or no categories of manufacturers should be exempted from the 5% cap.

EPA proposes to implement the 5% cap through a market-based banking and trading program. This program could be structured in a number of different ways, four of which are described below. EPA is not at this time proposing regulatory language for any of these approaches, but is requesting comment on the preferable way to structure a 5% cap trading program through any of the described or other possible approaches.

The two basic types of trading systems that could be applied here are a credit and debit system, as used for the NMOG average, and an allowance trading system, similar to that

established under Title IV of the Act for control of acid rain. In a credit and debit system, manufacturers generate credits or debits for vehicles according to whether their production is above or below a specified individual threshold number of vehicles. Thus, all reallocation of credits or debits (representing production quantities) is done through trading. In an allowance based system, the production limit is represented by a pool of allowances, each entitling the holder to produce a certain quantity of limited vehicles. The pool of allowances is distributed among the manufacturers on some equitable basis, producing individual limits, and manufacturers may conduct further adjustments in allocations through the market.

The structure of a trading system to implement the proposed 5% cap on Tier 1 vehicles and TLEVs is further complicated because the real target of the limitation is industry-wide production, not an individual 5% cap on each manufacturer's production. The first two approaches described below are the credit and debit approach and the allowance approach, both of these modified to ensure that enforcement would target only exceedances of the industry-wide 5% cap. The third approach is a straight allowance trading system, while the fourth is a straight allowance trading system with delayed implementation, linked to exceedance of the industry-wide 5% cap. Each of the described approaches would calculate vehicle production based on a manufacturer's entire National LEV fleet (passenger cars and LDTs 0-5750 lbs LVW), and calculations would only include vehicles delivered to a point of first retail sale in the OTR. None of these approaches would allow manufacturers to generate credits before the 2001 model year, although EPA is taking comment on whether early banking would be appropriate under any of these approaches.

Under the credit and debit approach, a manufacturer would generate credits or debits based upon the number of Tier 1 vehicles or TLEVs it produced and offered for sale in the OTR above or below a number equal to 5% of the total number of National LEV vehicles the manufacturer produced and offered for sale in the OTR. Credits and debits would be calculated in units of number of vehicles. As under the fleet average NMOG trading program, unused credits would be discounted over time.

In the instance where a debit situation arose, a manufacturer would have to equalize any debits by the end of the following model year. Offset of debits would be accomplished either through

earning an equal amount of credits in the model year after incurring the debit, or presenting to EPA an equal amount of credits acquired from another manufacturer. Credits and debits would not be generated until the end of the model year, but manufacturers would then have an opportunity to trade these credits prior to reporting annual totals as part of the annual compliance report due in May of each year.

This approach would be modified to target industry-wide exceedances or over-compliance, rather than individual limits. A manufacturer could only carry over to the next model year and would only be responsible for in the next model year, a balance of credits or debits that had been offset to account for credits or debits generated industry-wide. If EPA determines that the 5% industry-wide cap provision has been exceeded, then for enforcement purposes, a specific manufacturer's responsibility to make up debits in the next model year would be calculated based on that manufacturer's proportional responsibility for the industry-wide exceedance. Similarly, a manufacturer could only carry over to the next model year its proportionate share of the total credits generated industry-wide, after offset by any outstanding debits industry-wide.

Enforcement of exceedances would work in the following manner. An individual manufacturer's debits would be calculated based on the number of Tier 1 vehicles and TLEVs that the manufacturer produced and offered for sale in the OTR above a number equal to 5% of the total number of vehicles in that manufacturer's National LEV fleet produced and offered for sale in the OTR, plus any outstanding debits and minus any credits held. EPA would identify the industry-wide level of exceedance by determining the total number of Tier 1 vehicles and TLEVs produced and offered for sale in the OTR in excess of 5% of the OTR National LEV fleet (accounting for outstanding credits and debits), which would equal the sum of all individual manufacturers' credits and debits. Then, each manufacturer with debits would be responsible for a pro-rated share of the industry-wide exceedance calculated in the step above. This pro-rated share would be based on a manufacturer's number of debits relative to the total number of debits held by all manufacturers. For example, if the industry-wide production is 10,000, the industry-wide cap would be 500 Tier 1 vehicles and TLEVs. If the total number of Tier 1 vehicles and TLEVs produced and delivered for sale is 700, there are 200 net debits industry-wide. Assuming

Manufacturers A, B, and C held 100, 200, and 300 debits, respectively, then A's pro-rated responsibility would be  $100/600 \times 200$ , or 33 debits, B's would be  $200/600 \times 200$  or 67 debits, and C's would be  $300/600 \times 200$ , or 100 debits. This approach preserves the intent of the 5% cap by taking into account the industry-wide extent of any exceedance of the cap, rather than focusing on an individual manufacturer's exceedance, which may be partially offset elsewhere. However, this approach does entail a complicated enforcement scheme and may create some manufacturer uncertainty regarding the possible extent of their individual levels of liability in the event of an exceedance.

Similarly, in a year the industry-wide cap is not exceeded, a manufacturer would only be able to carry over credits that reflect the manufacturer's share of total credits available industry-wide, after offset by any outstanding debits. For example, if the industry-wide number of vehicles produced and offered for sale in the OTR is 10,000, the industry-wide cap would be 500 vehicles. If the total number of Tier 1 vehicles and TLEVs produced and offered for sale, after accounting for outstanding credits and debits is 400, there would be 100 credits available for carry-over. Assume Manufacturer A held 50 credits at the end of the model year, Manufacturer B held 100 credits, and Manufacturer C held 50 debits. Thus, the total number of credits produced is 150, and A's share of the available 100 credits would be  $50/150$ , or  $1/3$ , or 33, while B's share of the available 100 credits would be  $100/150$ , or  $2/3$ , or 67.

A variation on this approach would hold each manufacturer responsible for all of its excess vehicles above an individual 5% cap, whenever the industry-wide 5% cap is exceeded. Each manufacturer that produced and offered for sale Tier 1 vehicles and TLEVs in excess of 5% of its OTR fleet would be determined to be in violation for all of those vehicles above the individual 5% cap. Enforcing this method would be easier than the method described above. This approach would also create an additional incentive for manufacturers to limit their production of Tier 1 vehicles and TLEVs. However, it does operate against the intent of the 5% cap by holding each individual manufacturer to an individual 5% cap without taking into account the offsetting effect of some manufacturers producing well below the 5% cap.

Establishment of a revenue-neutral auction could facilitate credit trading under a credit and debit approach. An auction could reduce transaction costs

by enabling buyers to identify a ready source of credits, and could promote competitive pricing of credits. Credits for an auction could be obtained in a number of ways. First, EPA could automatically withhold for auction the following year any credits generated in years that industry-wide sales were below the 5% cap, with proceeds distributed to the generators on a pro rata basis. Alternatively, EPA could withhold in this manner some set portion of credits generated, perhaps between 10% and 50%, leaving the rest to be traded or banked by the generating manufacturer. Finally, the auction could offer for sale only credits voluntarily contributed by manufacturers that preferred to sell their credits through the auction. EPA requests comment on the option of establishing a revenue-neutral auction and details of its operation, including the source of credits offered for sale.

The main alternative to a credit and debit trading system is an allowance based system. Under an allowance approach, each manufacturer would have to hold allowances equal to the number of Tier 1 vehicles and TLEVs that manufacturer produced and offered for sale in the OTR in that model year. The total pool of allowances distributed among manufacturers should equal 5% of the total number of National LEV vehicles produced and offered for sale in the OTR each model year. EPA would need to estimate this number beforehand, however, so it would be an approximation of vehicles actually produced and offered for sale.

EPA requests comment on how to project the number of vehicles that manufacturers will produce and offer for sale in a given model year. One way is to average the last three years' worth of the number of vehicles produced and offered for sale, and perhaps multiply this average by some number to account for possible growth and variability in market size. Over the past 20 years, vehicles sales quantities nationwide have generally fluctuated less than 15% from year to year, so EPA could choose some number between 0 and 15% as a growth factor.

The number of allowances available for distribution would be equal to 5% of the projected quantity of vehicles produced and offered for sale. EPA could distribute these allowances according to each manufacturer's pro rata share of total Tier 1 vehicles and TLEVs produced and offered for sale in the previous model year in the OTR. For example, a manufacturer that produced and offered for sale 15% of the total number of Tier 1 vehicles and TLEVs produced and offered for sale in the

OTR in the previous model year would receive 15% of the allowances to be allocated in the next model year.

At the end of the reporting period, each manufacturer would have to submit to EPA a quantity of allowances equal to the number of Tier 1 vehicles and TLEVs that manufacturer produced and offered for sale in the OTR in the previous model year. Manufacturers could trade allowances among themselves to make up for shortfalls. A manufacturer with insufficient allowances to cover vehicles would have to make up the shortfall in the subsequent model year, or be subject to penalties. Manufacturers could bank excess allowances for use in future years, but the allowances would be discounted over time. The discount factor could be the same as under the proposed NMOG trading system, or could be modified to reflect different circumstances here.

This allowance-based approach could be modified to better relate allowance quantities and enforcement procedures to the actual vehicle production and exceedance of the industry-wide 5% cap in a given model year. One possibility is to require EPA to adjust the allowance pool to account for actual quantities of vehicles produced and offered for sale at the end of a model year. Under this scenario, if EPA had projected production below the number of vehicles that manufacturers actually produced and offered for sale in the OTR in a given model year, and hence allocated an insufficient number of allowances, EPA could distribute the additional allowances on the same proportional basis as it had used for the initial allocation for that year. EPA probably would not readjust the allowance pool in model years where it had projected higher than actual production because this would seriously undermine certainty for individual manufacturers. However, the system could be structured to require EPA to compensate for such excess allocated allowances in calculating the following year's available pool.

Another possible refinement of an allowance system would provide that EPA would only enforce against individuals based on exceedance of the actual industry-wide cap, not just individual allowance allocations. Similar to the modified credit and debit approach described above, an individual manufacturer's exceedance of its own allowance allocation (after any trading) would not be a violation unless the industry-wide 5% cap were also exceeded. In such a situation where there is an individual exceedance but no industry-wide exceedance, the

exceeding individual manufacturers are essentially implicitly using other manufacturer's excess allowances to offset their own shortfalls. Thus, any provision for banking excess allowances would have to account for the degree to which some apparently excess allowances have already been implicitly applied against other manufacturers' shortfalls. The number of excess allowances available industry-wide, after offset by any shortfalls, could be redistributed on a pro rata basis to all those manufacturers that held excess allowances, just as under the credit and debit approach. Manufacturers could bank allowances for use in future years only after offset.

Alternatively, instead of requiring a pro rata redistribution of allowances, EPA could allow manufacturers to bank all excess allowances, regardless of their implicit use to make up other manufacturers' shortfalls, but then impose more substantial depreciation of banked allowances. For example, EPA could impose a depreciation system under which banked allowances would be worth 50% of their value in the first year following the year in which they were initially allocated, 25% of their value in the second year, and would expire in the third year. This would be simpler to administer than a pro rata redistribution, but would still protect against double counting credits by providing automatic significant devaluation.

In a year where manufacturers exceed both individual allowance allocations (after any trading) and the industry-wide 5% cap, violations could be calculated based on exceedances of the industry-wide cap. Individual exceedances could again be implicitly offset by any available excess allowances held by other manufacturers. A manufacturer would only be responsible for its pro rata share of the industry-wide shortfall, which would equal the actual number of vehicles produced above the actual 5% cap after accounting for outstanding credits and debits. However, under an allowance based system, as opposed to a credit and debit system, there is also the possibility that the allowances allocated are not equal to 5% of the actual number of vehicles produced and offered for sale. Thus, in a year where EPA had overestimated projected production and the allowance pool is greater than the actual 5% cap, EPA should not apply allowances to offset shortfalls industry-wide if those allowances do not represent actual over compliance in terms of vehicle production.

Under this modified allowance-based approach, allocation of allowances

provides substantial protection to manufacturers that will generally produce and offer for sale more than 5% of their own OTR fleets as Tier 1 vehicles and TLEVs. Such manufacturers would not have to purchase sufficient credits every year to cover all of their excess production. However, in any trading system that provides for end-of-year adjustments relative to a 5% cap on actual levels of vehicles produced and offered for sale in the previous year, manufacturers will experience substantial uncertainty regarding what number of Tier 1 vehicles and TLEVs would actually result in an exceedance. Manufacturers would be better able to project what production is necessary for compliance if they have as much information as possible regarding industry-wide production levels, and therefore the likely level of exceedance or compliance industry-wide. One way to provide such information would be to require manufacturers to report quarterly, perhaps in the trade press, on the numbers of Tier 1 vehicles and TLEVs and the total size of their fleets that they have produced and offered for sale in the OTR up to that time. This information may be of somewhat limited value, however, given substantial short term variation in vehicle sales. EPA requests comment on means of providing manufacturers more information to improve production and compliance decisions.

Another possible approach to implementing a 5% cap trading system is to establish a simple allowance-based system, in which EPA would enforce against individual manufacturers with insufficient allowances, regardless of the actual number of vehicles produced and offered for sale in a given model year. The industry-wide 5% cap would be incorporated in this approach through the initial calculation of available allowances and the provision for trading allowances. However, EPA would make no further adjustments to calculate industry-wide versus individual compliance. This approach would greatly simplify administration. It would also provide individual manufacturers certainty regarding what numbers and mixes of vehicles they would need to produce and offer for sale to avoid noncompliance, and it would enhance their ability to protect themselves through banking allowances. This would give manufacturers somewhat less leeway in compliance by not providing for adjustment with industry-wide offsets or recalibration of the available allowance pool based on actual production. Any such additional

burden could be reduced by means such as making depreciation of banked credits less rigorous or building in a greater safety factor for increased production in projecting production and offer for sale and calculating the initial allowance pool.

The final approach described here would be to promulgate regulations setting up a straightforward allowance trading system, but to delay its implementation until the year following a year in which manufacturers have actually exceeded the industry-wide 5% cap. A credit and debit approach could similarly be subject to trigger by an industry-wide exceedance. This approach would avoid the substantial administrative costs for EPA and transaction costs for the manufacturers of implementing a trading program in years when it would provide no environmental benefit, and perhaps avoid such costs altogether. The prospect of having to implement a trading program would also provide manufacturers a powerful incentive to avoid an exceedance of the industry-wide cap. This approach would not give manufacturers the opportunity to bank allowances in the early years of the program, but EPA has no reason to believe it would be easier for manufacturers to comply with the 5% cap in the early years, so this may not be a real disadvantage. While a basic allowance approach would sacrifice some precision in terms of meeting an actual 5% cap each year, as opposed to EPA's projected 5% cap, the degree of precision sacrificed depends on how much of a buffer for growth is built into the projection. If it were critical that the manufacturers meet an actual 5% number every year, the allowance pool could be calculated based on something less than 5% of the projected number of vehicles produced and offered for sale. Alternatively, if the greater concern is to ensure that the allowance pool is not less than 5% of the actual number of vehicles produced and offered for sale, EPA could apply a larger growth factor in projecting production, such as assuming the fleet produced and offered for sale will be 15% greater than the average of the previous three years. EPA requests comment on all of these basic trading approaches, details of their implementation, and any other variations.

Any of these approaches to the 5% cap trading program would be implemented and enforced through the certificate of conformity, as under the NMOG trading program. The certificate for each Tier 1 vehicle and TLEV produced and offered for sale in the OTR in the 2001 and later model years

would be conditioned on demonstrating compliance with the 5% cap provisions, as well as any other applicable conditions imposed under other sections of the National LEV program. If a manufacturer did not equalize its debits or make up its allowance shortfall within the required time period, then each noncomplying vehicle would be deemed to be in violation of the certificate of conformity. The number of noncomplying vehicles would correspond to the number of outstanding debits or the quantity of the allowance shortfall, since both debits and allowances are in units of vehicles. EPA would determine these noncomplying vehicles by first designating Tier 1 vehicles and then TLEVs and continuing until a number equal to the calculated number of noncomplying vehicles as determined above is reached. EPA may void *ab initio* the certificates of conformity. As with the fleet average NMOG trading program, EPA would have some discretion in choosing the appropriate penalties and would consider mitigating factors.

EPA proposes to apply the same liability for credit or allowance transfers between manufacturers as is found in the fleet average NMOG trading program. This would preserve the similarity of the programs and reduce any potential confusion as to their operation.

Manufacturers would not be required to prepare an annual report demonstrating compliance with the 5% cap provision because all relevant data will be provided to EPA under the guidelines of the fleet average NMOG program. However, manufacturers would still be required to maintain accurate records and failure to do so could result in EPA voiding *ab initio* the certificates of the affected vehicles and imposing any other applicable penalties. As with the fleet average NMOG trading program, manufacturers would be required to report annually to EPA any credit or allowance transactions and the quantity of credits or allowances traded.

## 5. Tailpipe Emissions Testing

### a. California Phase II Reformulated Gasoline

The Agency is proposing to allow manufacturers the option to show compliance with emission standards for TLEVs, LEVs and ULEVs using Phase II gasoline (the same option allowed by California in implementing its regulations). EPA believes it cannot allow the use of California Phase II gasoline to demonstrate compliance with Tier 1 standards because that

would not demonstrate compliance with the mandatory federal standards. EPA takes comment on this issue. California allows the use of Phase II gasoline on emission data vehicles during official emission testing and, as a result, the OTC States would be accepting certifications using Phase II gasoline under OTC LEV.

The use of California Phase II reformulated gasoline has a direct impact on the stringency of the proposed emission standards. Data presented by California and others during the adoption of California's standards shows that the use of Phase II gasoline will reduce vehicle emission levels during exhaust and evaporative testing compared to testing using Federal Certification Fuel.

EPA promulgated a federal reformulated gasoline program in February 1994 (59 FR 7716, February 16, 1994). However, California Phase II gasoline is substantially different and will not be available nationwide. Consequently, testing performed using Phase II gasoline may not produce the same emission levels that will result in-use. The Agency has little data to evaluate the difference in in-use emission levels based on use of either federal reformulated gasoline or California phase II gasoline, and specifically invites commenters to supply data on this difference.

There are several good logistical reasons to use Phase II in the National LEV program. Using the same certification fuel in the California and federal programs will reduce the manufacturers' cost of demonstrating compliance. If they adopted the California LEV program, all the OTC States would use Phase II gasoline for emission compliance in any event. Consequently there is no emissions effect of using Phase II gasoline for certification demonstrations in OTC states.

EPA believes that the possible effect of using California Phase II reformulated fuel as certification fuel would have little impact on the overall benefits of the National LEV program and reflects a worthwhile savings in compliance demonstration costs.

Although EPA is proposing to allow use of California Phase II gasoline as the test fuel for certification, the Agency is not proposing any regulatory changes governing the fuel that is actually used in vehicles, nor is the Agency suggesting now that states adopt new fuel requirements. In-use fuels is one of the issues that was addressed by the Subcommittee. Prior to the June, 1995 Subcommittee meeting, EPA discussed the issues with representatives of the

auto industry, the oil industry and the OTC States, who agreed to the following principles:

- Adoption of the National LEV program does not impose unique gasoline requirements on any State. Gasoline specified for use by any State will have the same effect on the National LEV program as on the OTC LEV program.

- Testing is needed to evaluate the effects of non-California gasoline on emissions control systems.

- If testing results show a significant effect, EPA will conduct a multi-party process to resolve the issue without adversely affecting SIP credits or actual emission reductions when compared to OTC LEV using fuels available in the OTR or imposing obligations on manufacturers different from the obligations they would have had under OTC LEV.

These principles were presented to the Subcommittee at its June, 1995 meeting. Because of some parties' continuing concerns, the Agency intends to continue discussions on these issues with the relevant parties during the public comment period.

One area where discussions have already started relates to current auto and oil industry studies that address, among other things, the possibility that changes in the MIL illumination criteria for National LEV on-board diagnostics systems might be appropriate (see section IV.B.6., "On-Board Diagnostics"). Provided the above principles were met and the manufacturers agreed, the National LEV program as proposed would not preclude a future EPA rulemaking to change the MIL illumination criteria for the OBD systems.

#### b. NMOG vs. NMHC

The proposed voluntary standards, like California's LEV program standards, have a slightly different method of measuring hydrocarbons than the current federal approach used for the Tier 1 standards. Under the current federal standards, NMHC mass is determined by measuring THC using a flame ionization detector (FID) and subtracting the methane, which is measured using a gas chromatograph. Under California's test procedures for the LEV program, the measurement of hydrocarbons includes separate procedures for measuring additional organic components, such as aldehydes and ketones, to account for differences in FID response. The term used for hydrocarbon (HC) measured in this way is nonmethane organic gas (NMOG). The measurement of oxygenated hydrocarbons is more accurate under

the NMOG procedures as compared to the current FID method. Since there is currently no federal procedure in place for measuring NMOG, EPA proposes to adopt California's NMOG measurement procedure in its entirety for purposes of the National LEV program. The Agency previously adopted those procedures for the clean fuel vehicle (CFV) standards, where the applicable standards are also expressed in terms of NMOG rather than NMHC.<sup>22</sup>

#### 6. On-Board Diagnostics Systems Requirements

The voluntary standards would require on-board emissions diagnostics systems that meet California's second phase OBD requirements (OBD II). The on-board diagnostic system monitors emission-related systems and components for proper operation, detecting malfunctions or deterioration that can cause emission increases above specific threshold levels. When a malfunction or deterioration is detected, the OBD system stores critical diagnostic information geared toward facilitating an accurate and efficiently performed repair. The OBD system also illuminates a dashboard malfunction indicator light (MIL) immediately informing the vehicle operator of the need for service and, should that warning be ignored or neglected, the illuminated MIL can serve to inform an inspection and maintenance (I/M) official of the need for service. Thus, an OBD system is capable of both detecting emission-related malfunctions and deterioration and aiding in their proper diagnosis and timely repair. Both of these factors should lead to significant emissions reductions for vehicles equipped with OBD II.

EPA promulgated federal OBD requirements on February 19, 1993.<sup>23</sup> The federal OBD rules apply to 1994 and later cars and light trucks. California adopted its OBD II requirements in November of 1992, applicable to 1994 and later cars, light trucks, and medium duty vehicles. The federal OBD regulations allow for optional compliance with the California OBD II requirements through the 1998 model year. The current federal OBD and California OBD II regulations achieve similar results in terms of the type of OBD systems manufacturers need to install, but have somewhat different approaches toward the OBD requirements. The federal malfunction thresholds (i.e., the emission levels above which a malfunction or deterioration must be flagged) are stated

as an absolute emission increase above the vehicle's normal level. The California OBD II malfunction thresholds are stated as relative emission increases above applicable standards. As a result, as emission standards become more stringent, the California OBD II malfunction thresholds decrease accordingly, while the federal malfunction thresholds remain at the same absolute level. EPA expects that manufacturers will design essentially identical systems to comply with both federal and California regulations. However, the Agency recognizes that, for vehicles certified to the LEV and ULEV standards, the emission levels at which California OBD II must flag malfunctions is lower than the federal OBD malfunction thresholds, thereby providing the potential for more significant emission reductions from vehicles equipped with OBD II.

The voluntary standards would not require that vehicles comply with the tampering protection requirements of the California OBD II regulations. For reasons specified in the **Federal Register** notice of court decisions regarding Agency regulations<sup>24</sup> the Agency has vacated and subsequently deleted OBD-related tampering protection requirements from the federal OBD regulations. Likewise, the Agency has also determined that California OBD II tampering protection provisions<sup>25</sup> are not required for compliance with federal regulations.

#### 7. Fuel Provisions and Reactivity Adjustment Factors

As described above, EPA is proposing to use California phase II reformulated gasoline as the test fuel for gasoline-fueled vehicles certifying to today's proposed tailpipe standards for TLEVs, LEVs, and ULEVs. EPA is also proposing to adopt California's fuel specifications for alternative fuels. In some cases California has certification fuel specifications for alternative fuels where there is no federal specification. In the cases where there are both federal and California specifications for a given alternative fuel, the California specifications are more stringent and fuels meeting the California specifications also comply with the federal specifications. Thus, the adoption of California's certification specifications for alternative fuels will not create a conflict with any current federal requirements. However, EPA also takes comment on retaining federal specifications (when they exist) rather

<sup>22</sup> 59 FR 50042, September 30, 1994.

<sup>23</sup> 40 CFR § 86.094-017; 58 FR 9468.

<sup>24</sup> 59 FR 51114, October 7, 1994.

<sup>25</sup> Title 13 California Code section 1968.1(d).

than adopting California's specifications.

The proposed voluntary standards follow California's approach, as described below, of adjusting the emission standard to reflect differences in the impact on ozone formation between an alternative-fueled vehicle and a vehicle fueled with conventional gasoline. The use of reactivity adjustment factors (RAFTs) reflects the understanding that different hydrocarbons and mixes of hydrocarbons exhibit varying capacities for ozone formation, partially depending on whether the hydrocarbons are emitted by vehicles fueled with conventional gasoline or alternative-fueled vehicles.<sup>26</sup> In general, alternative-fueled vehicles tend to contribute less to ozone formation for a given mass of NMOG emissions than do gasoline-fueled vehicles. The primary goal of controlling vehicle emissions of HC and NO<sub>x</sub> is to reduce ambient ozone levels. It is reasonable to adjust NMOG emission control levels expressed in terms of mass emissions amounts, to account for different alternative-fueled vehicles' relative potentials for ozone formation, rather than to simply control on the basis of mass emissions. Thus, the proposed voluntary program would adopt RAFTs to allow equally stringent NMOG standards to be set for gasoline- and alternative-fueled vehicles, taking into account the different reactivities of their emissions in ozone formation. The RAFT is defined as the ozone-forming potential of alternative-fueled vehicle exhaust divided by the ozone-forming potential of gasoline-fueled vehicles. The measured NMOG mass emissions from an alternative-fueled vehicle are multiplied by the applicable RAFT before being compared to the applicable NMOG standard to determine compliance.

California has already developed RAFTs for some fuel types and has a process in place for the development of RAFTs for fuels that do not yet have them. Additionally, California allows manufacturers to use this process to develop their own engine family-specific RAFTs and RAFTs for fuel types for which California has not yet developed them. EPA proposes to use the RAFTs already adopted by California for alternative-fueled vehicles certifying to the proposed voluntary standards. Further, EPA expects to accept the use of new RAFTs that California develops for other fuels, as California develops

and adopts them. Finally, EPA proposes to allow manufacturers certifying to the proposed voluntary standards to develop their own RAFTs, subject to Agency approval, using the California process for RAFT development. EPA requests comment on the adoption of California RAFTs in the manner described here.

#### 8. Hybrid Electric Vehicles (HEVs)

The proposed voluntary standards also adopt California's approach to regulating emissions from HEVs. HEVs are powered by batteries, but also use a small combustion engine for additional range. The emissions from HEVs range from none, when running off the battery, to levels similar to TLEVs, when using the combustion engine. For certification, HEVs would be tested with the engine operating at worst case conditions over the standard test cycle. An HEV would have to meet the emission standards for one of the vehicle categories, TLEV, LEV, or ULEV, based on emissions from its combustion engine. This ensures that in the worst case situation, HEVs will not exceed minimum emission control requirements. However, some HEVs would have to demonstrate compliance with different, somewhat less stringent, useful life standards for certification, depending upon the type of HEV being certified. In addition, an HEV's contribution to the manufacturer's NMOG fleet average would be calculated as described below to account for the emissions benefits of its battery-powered operations.

The voluntary standards would follow California in recognizing three different categories of HEVs based on a vehicle's battery-powered range. Under the proposed standards, a "Type A HEV" must achieve a minimum range of 60 miles over California's All-Electric Range Test, while a "Type B HEV" and a "Type C HEV" must achieve ranges of 40–59 miles and 0–39 miles, respectively over that test. For certification, Type A HEVs would only have to meet 50,000 mile emission standards. Type B HEVs would have to meet 50,000 mile emission standards (using 50,000 mile deterioration factors) and 100,000 mile emission standards (using 75,000 mile deterioration factors). Certification only to 50,000 miles and use of the lower mileage deterioration factors account for the portion of the mileage accumulated while running off of the battery. Finally, Type C HEVs would have to meet both 50,000 and 100,000 mile standards (using 50,000 and 100,000 mile deterioration factors, respectively). Deterioration factors would be based on the emissions and

mileage accumulation of the vehicle's combustion engine.

An HEV contribution factor would account for the NMOG emission contribution of HEVs to the fleet average NMOG. The contribution factor would be calculated by taking the number of each type of HEV (A, B, or C) produced and delivered for sale in each certification category, multiplying each number by a value representing the expected emissions levels from that type of vehicle, and summing all of these products. This contribution factor is then incorporated into the equation used to calculate a manufacturer's NMOG fleet average, as described in Section IV.B.2. above.

#### C. Low Volume and Small Volume Manufacturers

The California LEV program has some special provisions for manufacturers of smaller quantities of vehicles. The Agency is proposing to adopt a new terminology, "low volume" manufacturer, to denote those manufacturers that California defines as "small volume manufacturers." This definition would be used solely for purposes of determining the NMOG fleet average applicable to certain manufacturers. The Agency would continue to apply the federal small volume manufacturer provisions, which provide relief from emission-data and durability showings and reduce the amount of information required to be submitted, to small volume manufacturers (as defined in current federal regulations) under the National LEV program.

"Low volume" manufacturers (as EPA proposes to define them) are provided flexibility in the California LEV program through special phase-in schedules for NMOG average standards. California provides this flexibility to each manufacturer with sales in California of no more than 3000 passenger cars, light-duty trucks, and medium duty vehicles per model year, based on the average annual sales over the last three model years. Under California regulations, such manufacturers are not subject to an NMOG average standard until model year 2001, when they must meet a fleet average NMOG standard for passenger cars and light-duty trucks of 0.075 g/mi.<sup>27</sup>

<sup>26</sup> Under the California LEV program, California phase II gasoline has been determined to have slightly lower ozone forming potential than conventional gasoline. Accordingly, RAFTs have been adopted by CARB for phase II gasoline.

<sup>27</sup> In addition, California provides such manufacturers with reduced durability and emission testing requirements, as well as abbreviated requirements for submittal of information. EPA is not proposing to adopt these additional requirements as part of National LEV, but is taking comment on doing so. Instead, for all purposes other than determination of the applicable NMOG average, EPA would retain its existing

In this voluntary program, EPA believes it would be inappropriate to require low volume manufacturers to sell LEVs sooner nationwide than would be required in California or under OTC LEV. For that reason, the Agency is proposing that low volume manufacturers would not be subject to the NMOG average until model year 2001, at which time they would be subject to the same NMOG average standard applicable to them in California and applicable to other manufacturers in the National LEV program (0.075 g/mi).

EPA is concerned that defining a low volume manufacturer solely on the basis of sales in California could create an incentive for manufacturers with large nationwide sales to reduce their sales in California. To ensure no abuse of the low volume NMOG fleet average provisions, EPA is proposing to expand the definition of a low volume manufacturer to include an additional nationwide sales limit. Therefore, a low volume manufacturer would be defined as a manufacturer with no more than 3000 sales in California of passenger cars, light-duty trucks, and medium duty vehicles per model year, based on the average sales over the last three model years; and with no more than a specified amount of sales nationwide of passenger cars and light light-duty trucks per model year, based on the average sales over the last three model years. EPA takes comment on where to set this amount, and is specifically considering amounts in the range of 25,000 to 40,000.

#### D. Legal Authority

EPA has statutory authority to promulgate the voluntary standards under sections 202(a) and 301(a) of the Clean Air Act. Section 202(a)(1) directs the Administrator to prescribe standards for control of air pollutant emissions from motor vehicles. EPA's establishment of voluntary, as well as mandatory, standards is authorized by section 202(a)(1). Establishment of voluntary standards is not precluded by section 202(b)(1)(C), which states that it is the intent of Congress that the Administrator shall not modify the emissions standards established under section 202(g), prior to MY 2004. Section 202(g) provides mandatory standards for emissions of NMHC, CO, NO<sub>x</sub>, and PM from light-duty vehicles and light-duty trucks up to 6000 lbs GVWR, and EPA is not proposing to

definition of "small volume" and the corresponding federal durability data and emission data requirements and other certification procedures that currently apply to small volume manufacturers. See 40 CFR 86.096-14 (b)(1).

modify those mandatory standards. In addition, section 301(a) authorizes the Administrator to promulgate regulations necessary to carry out her functions under the Act. The voluntary standards proposed here fall within the Administrator's duty to implement the broad air pollution reduction purposes of the Act, and specifically to control air pollution from motor vehicles. Because these standards would be promulgated under section 202, this is a section 307(d) rulemaking, subject to the procedural requirements specified in that section.

Section 202(a)(1) gives the Administrator authority to promulgate regulatory standards for emissions of air pollutants from motor vehicles. This subsection provides

[t]he Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class \* \* \* of new motor vehicles \* \* \*, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.

This is a broad grant of authority to the Administrator to prescribe standards to regulate emissions that contribute to air pollution. The National LEV program would regulate HCs, CO and NO<sub>x</sub>. These three pollutants are among the most significant contributors to air pollution in the United States. The strong CAA focus on controlling these pollutants indicates Congress' concern about the harm they cause and the need for their reduction. As discussed more extensively in section II.B above, air pollution from HCs, CO and NO<sub>x</sub> is known to have negative impacts on human health and the environment, and thus "may reasonably be anticipated to endanger public health or welfare." The Administrator's authority under section 202(a)(1) is further limited only by the requirement that such standards be "in accordance with the provisions of" section 202. Nothing in section 202 bars EPA from adopting emission standards that would be binding if and only if a manufacturer were to opt into them. Nor is any provision of section 202 inconsistent with a voluntary approach, so as to implicitly bar EPA's proposed action.

The proposed voluntary standards comply with section 202(a)(2), which requires any regulation prescribed under section 202(a)(1) to provide leadtime for technology development. Section 202(a)(2) mandates that any regulation under section 202(a)(1) may only "take effect after such period as the Administrator finds necessary to permit

the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." The voluntary standards would not impose emissions limits until MY 1997. The technology required by the voluntary standards would already be in production on California vehicles before the voluntary standards applied. TLEVs went into production for California in MY 1994, compared to MY 1997 in the OTR; while manufacturers would likely produce LEVs for California starting in MY 1997 or 1998, rather than MY 1999. Also, in granting California a waiver of preemption for its LEV program, EPA found that the state standards are not inconsistent with section 202(a). See 58 FR 4166 (Jan. 13, 1993) (announcing availability of Waiver of Federal Preemption; California Low-Emission Vehicle Standards (Jan. 8, 1993)). In making this decision, EPA already found that the California LEV standards are technologically feasible, considering the costs of compliance within the timeframe established. The voluntary character of the standards would provide further evidence of their feasibility. By opting into the voluntary program the manufacturers themselves would be affirming that the standards were feasible and that no further time would be "necessary" for them to meet the standards.

The voluntary standards also do not conflict with section 202(b)(1)(C), which prohibits EPA from changing the Tier 1 emissions standards prior to MY 2004. Section 202(b)(1)(C) states that "[i]t is the intent of Congress that the numerical emission standards specified in subsection (a)(3)(B)(ii), (g), (h), and (i) shall not be modified by the Administrator \* \* \* for any model year before the model year 2004." This language shows a narrow intent to prohibit modification of the mandatory federal Tier 1 standards. The promulgation of voluntary standards would not modify the Tier 1 standards. The Tier 1 standards would stay in effect, but manufacturers could choose to meet them by opting into National LEV. For manufacturers that did not opt into National LEV, the Tier 1 standards would be fully applicable. Congress did not intend to prevent manufacturers from voluntarily agreeing to meet reduced emission standards. See *Implementation of Federal Low-Emission Vehicle Program*, Appendix to AAMA Comments on Legal Issues Raised by the OTC Recommendation, Docket A-94-11, Document No. IV-D-46, at 9-10.

Compliance with National LEV would ensure that vehicles would continue to

meet the Tier 1 standards specified in CAA § 202(g). Federal Tier 1 is the vehicle emissions category with the highest allowable tailpipe emissions levels under National LEV. Due to the fleet average NMOG standard, however, the vast majority of covered vehicles under National LEV will certify to the tighter tailpipe emissions standards of the vehicle emissions categories of TLEV, LEV, ULEV, or ZEV. Intermediate and full useful life standards for these vehicle emissions categories are correspondingly more stringent as well. An individual vehicle certified to any of the allowable vehicle emissions categories under National LEV will necessarily also comply with the statutory Tier 1 standards.

Moreover, the voluntary standards approach does not violate the intent of section 202(b)(1)(C) because it would expand, not restrict, motor vehicle manufacturers' options. Congress passed section 202(b)(1)(C) to protect manufacturers from EPA actions mandating a more restrictive national motor vehicle emissions program. However, in the context of the OTC LEV recommendation, the voluntary regulations actually have the effect of allowing manufacturers more flexibility in meeting their legal requirements. Were the voluntary standards program not promulgated, manufacturers would have to meet the OTC LEV program in the northeast. The promulgation of the voluntary standards provides manufacturers with another method of meeting emission requirements in the northeast.

Section 301(a) provides a further source of EPA authority to promulgate the voluntary standards. Section 301(a) authorizes the Administrator "to prescribe such regulations as are necessary to carry out his functions under this chapter." The primary purpose of the CAA is to protect and enhance the quality of the Nation's air resources by reducing air pollution. Controlling emissions from mobile sources is a key means for achieving the Act's purpose, and Congress recognized this in enacting the mobile source provisions. Congress also found that air pollution control is the primary responsibility of state and local governments. In addition, in numerous places throughout the Act, Congress demonstrated its concern that these goals be achieved in an efficient and cost-effective manner, minimizing the costs of air pollution control to the extent possible. In promulgating these voluntary standards, the Administrator would further the basic pollution reduction goals of the CAA in a manner that would support state efforts and

would be relatively cost-effective compared to the OTC LEV recommendation. Because the decision to be subject to these standards would be voluntary, EPA would simply be providing an opportunity for an alternate means of compliance, rather than mandating new requirements for manufacturers. These actions are consistent with section 202 and the rest of the Act, and are well within the Agency's broad authority under section 301(a).

#### *E. Enforceability and Prohibited Acts*

Once manufacturers have opted into the voluntary program, the program would become fully enforceable against them.<sup>28</sup> Manufacturers would be liable for compliance with these regulations to the same extent they are liable for compliance with other federal motor vehicle regulations. The manufacturers would have to comply with virtually the same testing regime (certification, Selective Enforcement Audit (SEA), and in-use recall testing) and the same warranty requirements as for other standards.

Moreover, any manufacturer that has opted into the program and subsequently fails to comply with the requirements of the program would be subject to sanctions under sections 203, 204 and 205 of the Act. The proposed regulations contain specific language from section 203 indicating that a violation of these standards shall be considered a violation of section 203 (including violations regarding tampering) and shall subject manufacturers (or any other persons) to injunctive and monetary penalties under sections 204 and 205. Manufacturers and other violators would not have a defense regarding the applicability of these sections to the voluntary program because such applicability will be explicitly found in the regulations. Under section 307(b), any challenge to the National LEV provisions would have to be made within 60 days of publication of the final rule. Failure to challenge these regulations within the 60 day period for judicial review will prevent any person from subsequently challenging the enforceability of these regulations. In addition, in their opt-in notifications, manufacturers would have committed not to challenge EPA's legal authority to establish and enforce the National LEV program, and committed to seek to

<sup>28</sup> Any challenges to the legality of these regulations must occur within sixty days after publication of the final regulations in the **Federal Register**. See Clean Air Act section 307(b), 42 U.S.C. § 7607(b).

certify vehicles only in compliance with the National LEV requirements.

#### **V. National LEV Deemed to Satisfy OTC LEV SIP Obligation**

In the OTC LEV decision, EPA required states to cure the SIP inadequacy by either adopting OTC LEV or a "short-fall" SIP. 60 FR 4712, 4716, 4736 (January 24, 1995). However, EPA provided that the SIP inadequacy would be deemed cured if EPA determined through rule-making that a national LEV-equivalent new motor vehicle emission control program is an acceptable alternative for OTC LEV, and EPA finds it is in effect. 40 CFR § 51.120(a). In this rulemaking, EPA proposes to find that National LEV is an acceptable LEV-equivalent program. Also, EPA is proposing criteria for a subsequent finding that National LEV is in effect for purposes of satisfying the OTC LEV SIP call. If these criteria are satisfied, EPA will find that the program is in effect and will publish that finding in a **Federal Register** notice. Such an effectiveness finding would be deemed to cure the SIP inadequacy found in the OTC LEV decision without the need for further rulemaking. The SIP inadequacy would be deemed cured for the period of time when National LEV remains in effect, or would be deemed permanently cured when National LEV is replaced by new mandatory Tier 2 standards that are at least as stringent as National LEV.

##### *A. Acceptable LEV-Equivalent Program*

###### **1. Criteria for Finding Acceptable LEV-Equivalent Program**

EPA recognizes two key criteria for approval as an acceptable LEV-equivalent program. One criterion is that the VOC and NO<sub>x</sub> emissions reductions within the OTR produced by National LEV must be equivalent to or greater than the emissions reductions produced by OTC LEV. The other is that the alternative program must be enforceable.

These criteria arise from the legal standards guiding EPA's decision to approve the recommendation from the OTC. EPA approved the recommended measures under section 184 based on a determination that they were necessary for any area in the OTR to attain or maintain the ozone NAAQS. The same determination of necessity led EPA to issue a SIP call to address interstate pollutant transport, under section 110(k)(5). This finding of necessity was based on an analysis of the need for VOC and NO<sub>x</sub> emissions reductions from new motor vehicles in the OTR. Since it is VOC and NO<sub>x</sub> emissions reductions from new motor vehicles that

are actually necessary for attainment or maintenance, and to address interstate transport, an acceptable alternative must produce the equivalent emissions reductions from new motor vehicles.

The enforceability criterion is designed to ensure that the emissions reductions expected from the alternative program will occur or are so likely to occur that it is appropriate to credit a state with those expected emission reductions in its SIP. This stems from the statutory and regulatory requirement that SIP provisions and reductions relied on in the SIP must be enforceable in order for EPA to approve SIP credits for those provisions and reductions. OTC LEV would be implemented as such an enforceable SIP provision. An acceptable alternative to states adopting an enforceable state LEV program would likewise have to be enforceable and adequately assure that the expected emissions reductions will in fact occur.

A number of parties have suggested that advancing motor vehicle pollution control technology is an important benefit of OTC LEV and should be a criterion for determining whether National LEV is an acceptable LEV-equivalent program. Although EPA agrees that advancing technology is an important policy goal, EPA does not believe that it is or should be a legally-required criterion for approval of a LEV-equivalent program. EPA granted the OTC LEV petition and issued the SIP call under CAA sections 110 and 184, which allow EPA to require emission reductions, not to require advances in technology. Thus, a program could cure the SIP deficiency without advancing technology. As long as an alternative program will achieve emissions reductions equivalent to anticipated reductions under the OTC recommendation, EPA need not mandate that the states achieve those reductions by forcing development of advanced technology.

Although advancing technology is not a legal requirement, it is a practical one. EPA recognizes that including some advanced technology component is important for all the parties to find the alternative acceptable and could provide additional environmental benefits beyond emissions reduction equivalency. For example, the promotion of technology in this program may promote the long-term development of new control technologies that may be beneficial for reduction of emissions in the future. OTC LEV would advance technology by requiring the phase-in of cleaner vehicles (ULEVs and, possibly, ZEVs) over time. Thus, while promotion of advanced technology is not a necessary

criterion for EPA to approve an alternative program, EPA recognizes that inclusion of such a component would enhance the long term environmental benefits of an alternative and its acceptability to all parties.

## 2. Application of Criteria to Voluntary Program

### a. Emissions Reduction Equivalence Determination

EPA proposes to find that the National LEV program meets the criterion that emissions reductions within the OTR must be equivalent to those produced by the OTC LEV program, based on EPA's own modeling of the two programs. Data to support the contention that the two programs were equivalent in terms of emissions reductions were presented to the Subcommittee at a September 30, 1994 meeting and were included in the Notice of Data Availability. 59 FR 53396, 53401 (October 24, 1994). At that meeting, and during subsequent meetings in October and November of 1994, many questions were raised regarding factors that may have been left out of the analysis comparing the two programs which could affect the equivalency determination. These factors were addressed in subsequent memoranda to the Subcommittee. Memoranda from Gary Dolce, Office of Mobile Sources, USEPA to Subcommittee and Work Group Members on Mobile Source Emissions and Air Quality in the Northeast States, "Analyses and Background Material Requested by the Subcommittee", October 25, 1994, and "Further Analyses and Background Material Requested by the Subcommittee" (November 3, 1994), Docket No. A-94-11, IV-E-51, IV-E-56. In addition, EPA has since completed a more thorough analysis of the benefits of the two programs as part of the required Regulatory Impact Analysis for the OTC LEV Final Rule and for this proposed rule. All of EPA's analyses of this issue lead to the same conclusion: given current assumptions about future vehicle performance and given the best currently available information about the migration of people and vehicles, it is reasonable to conclude that the emissions benefits in the OTR of the National LEV program and the OTC LEV program are essentially equivalent.

The results of EPA's current analysis of the equivalency issue, as presented in the Regulatory Impact Analysis, are presented in the following table. This analysis includes the effects of vehicle migration as discussed below. The OTC LEV case shown here assumes that a

ZEV sales mandate exists only in states that have already adopted this mandate. However, even if it is assumed that there are ZEV sales mandates throughout the OTR, it does not result in a change in EPA's conclusion that the emissions benefits of the OTC LEV, including ZEV mandates in all OTR States, and National LEV programs are essentially equivalent.

TABLE 6.—OZONE SEASON WEEKDAY EMISSIONS FOR HIGHWAY VEHICLES IN THE OTR (TONS/DAY)

Year	Pollutant	OTC LEV	National LEV
2005 ...	NMOG	1,491	1,483
	NO <sub>x</sub>	2,385	2,389
2007 ...	NMOG	1,361	1,353
	NO <sub>x</sub>	2,218	2,212
2015 ...	NMOG	1,152	1,144
	NO <sub>x</sub>	1,943	1,894

EPA identified two factors that would clearly be most important to the equivalency determination. The National LEV program would begin in the OTR with the 1997 model year, two years earlier than the OTC LEV program. In addition, beginning with the 2001 model year, vehicles that migrate into the OTR from other states would be substantially cleaner under the National LEV program than under the OTC LEV program because the National LEV program applies nationally. In order for the National LEV program to show equivalent emissions reductions to the OTC LEV program, these two factors would have to outweigh the additional benefits attributable to the OTC LEV program due its lower fleet average NMOG standard.

EPA's analysis indicates that the impact of the earlier start date for the National LEV program is not enough by itself to compensate for the higher fleet average NMOG standard for this program, except in the earlier years of the program. This analysis is based on existing EPA models and standard assumptions about the future performance of vehicles under both programs.

The effects of vehicle migration are much more difficult to assess. Because actual state-by-state vehicle migration data were not available, EPA used human migration data as a surrogate. Using state-by-state human migration data from the Internal Revenue Service, EPA estimated the annual migration rate of people into and out of the OTR. Assuming that vehicles migrate at the same rate as people, EPA then constructed a simple model to determine what percentage of vehicles

in the OTR vehicle fleet in any year would have been originally sold outside the OTR, taking into account annual in and out migration rates as well as motor vehicle scrappage rates. Using this approach, EPA determined that approximately 6.5% of the motor vehicle fleet in the OTR originated outside the OTR. When the National LEV and OTC LEV programs are compared including this migration assumption, the emissions reductions associated with the two programs are essentially equivalent.

During the Subcommittee meetings in October and November of 1994, members of the Subcommittee raised questions about additional factors which might affect the conclusion that these two programs are equivalent. Subsequent EPA analysis, presented to the Subcommittee, indicates that none of the issues raised changes the estimated emissions benefits enough to change the conclusion that the two programs result in equivalent emissions reductions within the OTR. The results of this analysis are presented in the memoranda referenced above.

#### b. Enforceability

EPA also proposes to find that National LEV meets the criterion that it provide enforceable emissions reductions. There are two aspects of the enforceability criterion. First, the National LEV program emissions standards and requirements must be enforceable against those manufacturers that have opted into the program and are operating under its provisions. Second, the program itself must be sufficiently stable for EPA to conclude that offramps will not be triggered and the program will remain in effect for its expected lifetime, thus retaining the enforceability of the standards. EPA proposes to find that the manufacturers would be subject to the program until standards at least as stringent as National LEV are adopted as mandatory federal standards. EPA is also proposing that, if the program ends prior to adoption of mandatory federal standards at least as stringent as National LEV, then the SIP call would no longer be cured and the OTC States would be required to meet the SIP call contained in 40 CFR § 51.120.

EPA believes that National LEV is fully enforceable against those manufacturers that have bound themselves to comply with the program. Once a manufacturer opts into the National LEV program, compliance with the applicable standards is mandatory. Because the National LEV regulations would be promulgated under CAA sections 202 and 301, a manufacturer

that chooses to be covered by these regulations would be subject to the same enforcement procedures as exist for the current mandatory federal motor vehicle program. For example, violations of the National LEV standards provisions would be subject to sanctions under CAA sections 204 and 205. The certification, selective enforcement audit (SEA), recall, and warranty provisions of the current federal motor vehicle program would also apply to the National LEV program, as well as all other federal motor vehicle requirements not explicitly superseded by National LEV requirements.<sup>29</sup> The applicability of federal enforcement provisions would ensure that National LEV is an enforceable program. As a result, as long as manufacturers continue to be subject to the National LEV program, the standards and requirements of the program will be clearly enforceable.

In addition to National LEV being legally enforceable, there will also be strong practical disincentives to manufacturers either challenging the enforceability of the standards or even taking advantage of a potential offramp, unless the triggering event is something the manufacturers consider a substantial burden. The manufacturers strongly support National LEV as an alternative to OTC LEV and as long as one or more states have the ability to swiftly require compliance with OTC LEV, in the absence of National LEV, manufacturers will be reluctant to destabilize National LEV. New York, Massachusetts and Connecticut have adopted LEV programs. One or more of these States is likely to keep its LEV program as a "backstop," which would automatically apply to any manufacturer not subject to National LEV. This would ensure that if National LEV were not in effect, manufacturers would have to comply with OTC LEV, in one or more States, without the delay of those States having first to adopt OTC LEV. EPA believes that having OTC LEV as a backstop in one or more States that already have a LEV program would provide an important extra measure of program stability and would support EPA findings that National LEV is enforceable.

EPA is proposing to find that the National LEV program will remain in effect for the intended duration of the program (i.e., at least through model year 2003, and perhaps through model year 2004 or 2005) because the

<sup>29</sup> The certification procedures would be harmonized with California's certification procedures to the extent possible, as part of this rulemaking. See Section VI.B.

circumstances allowing the program to terminate prematurely are limited and unlikely to occur. The only circumstances allowing the program to terminate prematurely would be certain EPA changes to Stable Standards or an OTR State's failure to meet whatever commitments it makes regarding adoption of motor vehicle programs under section 177 of the Act. There are a variety of disincentives for either EPA or the OTR States to act in a manner that would trigger an offramp.

The Agency believes that it is unlikely to change any of the Stable Standards in a manner that would give the auto manufacturers the right to opt out of the program. In the case of the conventional tailpipe emission standards, the Clean Air Act explicitly prohibits the Agency from mandating greater stringency than the Tier 1 standards prior to model year 2004. The tailpipe standards proposed for the National LEV program are already more stringent than (or in some cases, equivalent to) those statutory standards; thus EPA is prohibited by statute from requiring manufacturers to comply with any more stringent standards that would trigger the offramp opportunity. The remaining program elements proposed for inclusion in the Stable Standards are those where EPA's technical analysis of the current Federal provisions reveals no significant shortcoming that will require new, more stringent rulemaking action applicable during the model years of the proposed NLEV program. A more detailed discussion of the Agency's rationale for the proposed set of Stable Standards may be found in Section IV.A.4.

EPA would retain substantial flexibility to make certain types of adjustments to requirements designated as Stable Standards without triggering an offramp. First, EPA would be able to make any changes to which manufacturers did not object. Nor could EPA unknowingly trigger an offramp under this provision, because a manufacturer would have had to have objected to a proposed change during the public comment period in order to use it as a basis for opt out. Second, EPA could make modifications that do not affect stringency, which would allow EPA to fine tune standards or other requirements without putting the program in jeopardy. Third, EPA would be able to make modifications that harmonize the federal standard with the California standard without triggering an offramp. This would allow further refinement of the program and allow EPA to make even major corrections if California similarly views the change as necessary.

EPA will also need to find that the OTR States are unlikely to break their commitments regarding adoption or retention of motor vehicle programs under section 177 of the Act. To date, the OTR States and manufacturers have not yet decided the details of how the OTR States should commit themselves to the National LEV program, either in terms of the exact substance of what the States will commit to, or the legal instruments for such a commitment. EPA will incorporate in the final rule whatever the OTR States and manufacturers agree the States should commit to, and State violation of such commitments would allow manufacturers to opt out of the program. EPA believes the final agreement will contain sufficiently firm commitments that the Agency will be able to find in the final rule that the States are unlikely to break those commitments. EPA will provide an opportunity for comment on this issue once more is known about the OTR States' commitments.

Based on the ongoing discussions, the OTR States are likely to make some kind of commitment not to adopt a motor vehicle program under section 177 of the Act without allowing compliance with National LEV as a full alternative. In addition, States with section 177 programs already in place might agree to modify those programs within a certain timeframe to allow alternative compliance with National LEV. These commitments could be embodied in one or several legal instruments, including a memorandum of understanding, consent decrees, a SIP revision incorporating the State's commitment, letters of commitment from the Governor or Attorney General, and others. EPA will make information regarding the final agreement available to the public prior to promulgation of the final rule.

### c. Opportunities for Technology

EPA believes that the 49 State LEV program, together with the agreement between the parties on which it is based, would provide important opportunities to promote ATVs. The regulatory portion of the National LEV program proposed here does not address ATVs, as they are not a legally necessary component of a substitute for OTC LEV. However, the agreement pursuant to which the States and manufacturers would implement the National LEV program includes an "ATV component" to meet the parties' interest in promoting the development of ATVs. EPA supports the thoughtful, innovative approach the OTR States and auto manufacturers are proposing to take to introduce and establish ATVs in the OTR.

The ATV component that the OTR States and auto manufacturers have been discussing would be a unique agreement that would use an on-going, cooperative relationship to focus on shared visions, commitments and responsibilities. The parties will identify and address the means to achieve a viable ATV market, including infrastructure development, vehicle technology improvements, and incentive programs. The ATV component would rely on California's laws to force technology development, and ensure that technology takes hold in the OTR by having all parties working together to establish and maintain a sustainable, viable market for ATVs at the retail level. The ATV component anticipates that OTR States, major motor vehicle manufacturers, other states, EPA, the Department of Energy, fuel providers, converters, fleet operators, and other manufacturers of specialty motor vehicles would each have roles to play to facilitate the introduction of ATVs. EPA strongly supports this innovative approach and looks forward to participating in this effort.

Under the ATV component, the OTR States and auto manufacturers are looking at defining advanced technology vehicles as vehicles that are certified for sale in California and that are (1) certified as ULEVs or ILEVs using any fuel, (2) dedicated or hybrid electric vehicles, or (3) other alternative fuel vehicles as defined by the Energy Policy Act (certification level and timing are not resolved on this category).

The ATV component, which would be based on and build upon the requirements of the Energy Policy Act, would outline a process to orchestrate introduction of ATVs. The parties would jointly identify vehicle sales estimates. Then there would be integrated development and execution of tasks necessary to create and maintain a viable, sustainable market for ATVs. The process would also include measurement and public reporting of the parties' performance towards achieving the goals and accomplishing the necessary tasks.

Three phases of ATV introduction would be suggested by the ATV component. First, from 1996 to 1998, the parties would focus on developing ATV markets for federal, state and fuel provider fleets. This phase would include marketing ATVs to fleets, beginning development of refueling infrastructure, and surveying the potential demand for ATVs from 1999 to 2001. Second, from 1999 to 2001, municipal and private ATV fleets would also be developed. This would include expanding product offerings,

infrastructure, and incentives; surveying potential demand for 2002 to 2004, and identifying criteria needed to sustain retail sales. In the third phase, from 2002 to 2004, retail consumer offerings would be added.

The ATV component presents the parties with an important opportunity to show that government/industry partnerships can achieve important environmental benefits and do so in a way that provides the parties with greater flexibility, while still holding them responsible for achieving the end goal. EPA is aware that this approach involves risks that are not present in traditional regulatory approaches—the ATV component is not legally enforceable; no one can go to court if the parties do not follow through on their commitments. However, by focusing resources on cooperative efforts to make a market-oriented program work, this approach has great potential for benefits. EPA believes this is an appropriate opportunity to take the risk and try to use a different model to achieve environmental benefits.

EPA will work with each state individually to determine the appropriate SIP credit for the ATV component. Current uncertainty concerning the number and types of ATVs that will be introduced into each state precludes EPA from providing SIP credit now. However, EPA expects that SIP credits will become available as the program is implemented. As ATVs are bought in individual states, EPA and the state will be able to calculate the emissions benefits for the life of the ATVs. In addition, EPA will also work with states to determine whether and what SIP credit is appropriate for specific measures (such as commitments to buy a specified number of ATVs).

### B. Finding LEV-Equivalent Program in Effect

EPA is proposing certain regulatory criteria for finding that the acceptable LEV-equivalent program described in these proposed regulations has come into effect for purposes of satisfying the OTC LEV SIP call. Upon EPA making such a finding, which would be published in the **Federal Register**, the SIP inadequacy found in the OTC LEV decision would be deemed cured without the need for further Agency rulemaking or state action.<sup>30</sup> In addition,

<sup>30</sup> Of course, OTC States would not be precluded from adopting OTC LEV, as long as the State allows compliance with National LEV as a full alternative to compliance with the State OTC LEV program.

States may need to take further action to commit to the National LEV program pursuant to their agreement with the auto manufacturers.

to the extent that manufacturers have conditioned their opt-ins upon EPA making such a finding, the opt-ins would become fully and unconditionally binding. The SIP inadequacy would remain cured as long as National LEV continued in effect or had been replaced by standards at least as stringent promulgated under section 202(i) of the Act.

EPA believes that the Agency could make a finding as to whether the National LEV program has come into effect for purposes of satisfying the OTC LEV SIP call, without the need for further notice-and-comment rulemaking. EPA is providing full opportunity for public comment on establishing the criteria for making an in effect finding. The proposed criteria for making this finding are that all manufacturers listed in the regulations have submitted opt-in notifications in accordance with the requirements specified in the regulations. The submission of such opt-in notifications is an easily verified objective criterion. The manufacturers that would need to have submitted opt-ins are listed in the proposed regulation. The regulation also specifies the operative text that would have to be present in an opt-in notification and the necessary legal authority of the person signing such a notification. Because the satisfaction of the criteria is so clear as to be virtually self-executing, EPA believes that conducting further notice-and-comment rulemaking on whether the criteria were satisfied would produce additional delay while serving no purpose.

All affected parties would benefit by a prompt determination of whether or not the National LEV program has come into effect as an acceptable alternative to OTC LEV. Thus, the proposed regulations direct EPA to find whether or not National LEV is in effect within 60 days of publication of the final rule establishing the National LEV program. EPA believes this would give the manufacturers sufficient time to evaluate the provisions of the final rule and make a final decision to opt in. It would also ensure that should EPA find that National LEV is not in effect, the States would still have time to adopt OTC LEV so that it would be effective for model year 1999. However, EPA is requesting comment on whether it should instead adopt a different timeline, or no deadline at all.

To achieve emissions equivalency with OTC LEV, EPA could find National LEV to be in effect if all existing original engine manufacturers (OEMs) opt in in compliance with the opt-in requirements proposed in this rule. For the purposes of the National LEV

program only, EPA is proposing to refer to as "existing" OEMs, those manufacturers that have received a certificate of conformity for a light-duty engine family for the 1995 model year. EPA is proposing to list in the rule the manufacturers meeting this criteria.<sup>31</sup> If all listed manufacturers opt in, the opt-ins will be binding on the manufacturers and they will be subject to all of the provisions of the National LEV program. Each opt-in must take the form of a letter signed by a company official with clear authority to bind the company. The letter must unambiguously declare the manufacturer's intention to comply with and be bound by the terms of the National LEV program, subject only to the condition that EPA find by the date specified in the regulations for EPA to make an in effect finding that the program is in effect for purposes of satisfying the OTC LEV SIP call. All of these criteria are easily and objectively determined and there would be no need for EPA to engage in further rulemaking to determine whether the criteria were satisfied. Rather, EPA would make a straightforward, objective determination of whether or not the criteria were satisfied, and then would notify the public of a finding that National LEV is in effect through publication in the **Federal Register**.

EPA is proposing that the OTC LEV SIP call would be deemed cured as long as National LEV is in effect or deemed permanently cured once National LEV has been replaced by new motor vehicle emissions standards of at least equivalent stringency promulgated under § 202(i). Under the proposed provisions for program duration, if by December 15, 2000, EPA had not promulgated new, mandatory tailpipe standards at least as stringent as National LEV that took effect in model year 2004, 2005, or 2006; beginning in model year 2004, manufacturers would only have to meet Tier 1 tailpipe standards in the 49 States. In that event, the quantity of annual emissions reductions that would have been produced by OTC LEV would be lost unless the OTC LEV SIP call were still in effect. Similarly, in the highly unlikely event that the program does not continue for its full expected duration (at least until 2004), the lost emissions reductions from early program dissolution would need to be made up through OTC LEV. In addition, retention

of the OTC LEV SIP call provides a further disincentive to program dissolution, as both the manufacturers and OTR States view National LEV as a more cost-effective and environmentally beneficial alternative to OTC LEV. Once EPA has promulgated mandatory new motor vehicle tailpipe standards of at least equivalent stringency under section 202(i) of the Act, these would achieve equivalent emissions reductions and replace the voluntary National LEV requirements. Consequently, the SIP deficiency would be deemed permanently cured. EPA requests comment on this approach to when the OTC LEV SIP call remains in effect and when it would be deemed permanently cured.

In the event that an offramp were triggered and one or more manufacturers opted out, National LEV would remain in effect for purposes of satisfying the OTC LEV SIP call until EPA determined through rulemaking that the program was no longer in effect. The criteria for such a determination would also be established in that later rulemaking.

## **VI. Other Applicable Federal Requirements and Harmonization With California Requirements**

### *A. Introduction*

Given the automobile manufacturers' commitment to National LEV, EPA has committed to work with CARB to harmonize federal and California motor vehicle standards and test procedures to the extent possible. This would allow manufacturers to design and test vehicles to one set of specifications for sale nationwide, rather than designing and testing to two sets (California's and EPA's). EPA believes that the National LEV program plus harmonization of federal and California standards is a smarter, cheaper way to regulate that increases environmental and public health benefits. Under today's proposal and existing regulations, EPA believes that manufacturers will have harmonized standards and test procedures in the following areas: tailpipe exhaust standards, revised Federal Test Procedure, on-board refueling vapor recovery, evaporative emissions, and cold CO.

Today's proposal would add a new Code of Federal Regulations (CFR) subpart (Subpart R of Title 40, Part 86) containing the essential, regulatory elements of the voluntary National LEV program. The core of the program is the set of proposed tailpipe emission standards, NMOG fleet average requirements, and OBD requirements contained in the Subpart R language just

<sup>31</sup> The list in the proposed regulations at § 51.121(d) will be updated, if necessary, in the final rule to reflect any manufacturers that receive a certificate for the 1995 model year after promulgation of this NPRM.

described. These core provisions, based on the California program, are intended to substitute for the OBD requirements and Tier 1 emission standards in the framework of the current Federal motor vehicle control program.

Beyond this core, the balance of the Federal motor vehicle emissions control program (including other standards and requirements, and both certification and compliance program elements) would continue to apply to vehicles produced and sold by manufacturers opting into the National LEV program. The relevant provisions would be amended as necessary to accommodate changes resulting from the National LEV program. Significant elements of the federal new motor vehicle certification program that would apply to National LEV vehicles include the cold temperature CO standards, on-board refueling vapor recovery requirements, and the certification short test. Similarly, the current federal compliance program, including the fees program, selective enforcement audit program, emissions recall program, the federal emissions warranties, and federal emissions defect reporting requirements, would be used to implement the National LEV program. EPA would retain the authority to add regulatory requirements to the motor vehicle program, (e.g., as may be required under section 202(l) of the Clean Air Act to address air toxics) or to modify existing requirements (e.g., as it has proposed to do for the Federal Test Procedure). By proposing the National LEV's Stable Standards, EPA is recognizing that it does not intend to use the authority to modify certain existing regulations except in limited circumstances.

In an effort to reduce duplicative testing burdens on the vehicle manufacturers, EPA has committed to harmonize certain elements of the federal motor vehicle regulations with the California counterparts. For example, EPA and CARB are working actively to harmonize the federal and California evaporative emission requirements of the respective parties. Today's proposal is consistent with these efforts. To further the objective of reducing duplicative testing and compliance requirements on the manufacturers, EPA will seek consistency with California in future regulatory actions where practicable.

#### *B. Harmonization of Federal and California Standards and Requirements*

Additional comments on the nature and status of harmonization efforts currently underway are provided below.

#### 1. On-Board Refueling Vapor Recovery

EPA anticipates that the federal and California on-board refueling vapor recovery (ORVR) standards will be harmonized. As directed in the 1990 Clean Air Act Amendments (CAAA), EPA has set requirements for vehicle-mounted systems to control the emissions of HC vapors during refueling, called ORVR systems. 58 FR 16262 (April 6, 1994); 40 CFR §§ 86.001-9, 86.004-9, and 86.098-8. ORVR-equipped vehicles must meet a standard of 0.20 grams of HC per gallon of fuel pumped during a test described in the final ORVR rule. Although California currently has no ORVR requirements separate from the federal standards, CARB staff have expressed an intent to pursue the adoption of a program similar to EPA's. EPA expects that this CARB action will produce harmonized federal and California ORVR standards.

#### 2. Evaporative Emissions

EPA and CARB are in the process of harmonizing the federal and California evaporative emissions standards and test procedures. The federal motor vehicle emissions requirements include standards for HC emissions emanating from sources other than the exhaust system or crankcase, called evaporative emissions. The effectiveness of these standards is strongly dependent on the test procedure by which the standards are measured. As required by the CAA, EPA finalized a new test procedure and standards for enhanced evaporative emissions control that will be phased in beginning with the 1996 model year 58 FR 16002 (March 24, 1993). CARB finalized a similar set of new standards and test procedures that is being implemented in California according to a somewhat earlier phase in schedule CARB mail-out #95-01, January 4, 1995.

EPA and CARB staff have in recent months made steady progress toward harmonizing the two sets of test procedures and reducing testing burden by enabling manufacturers to satisfy the certification test requirements of both agencies in a single test, without sacrificing air quality benefits. Both agencies are now in the process of promulgating technical amendments to their regulations that will largely achieve this goal. A direct final rule containing technical amendments to the EPA test procedure (including amendments designed to harmonize federal and CARB evaporative emissions requirements) was published on August 23, 1995 (60 FR 43880). CARB held a Board hearing regarding their technical amendments on June 29, 1995, and

expects to finalize their actions no later than June, 1996. The one major area of difference remaining concerns test fuel volatility and temperature conditions, discussed below.

The CARB evaporative emissions test procedure requires the use of gasoline with a volatility of 7 psi Reid Vapor Pressure (RVP) and a test lab simulation of a 105° F day. These fuel and temperature specifications are appropriate for California because they are designed to simulate a very hot day in California and the use of California Phase II reformulated gasoline. EPA's test procedure specifies 9 psi RVP fuel and simulation of a 96° F day, reflecting the goal of complying with CAA requirements for evaporative emissions control across the varied conditions in the United States. Test fuel volatility and test temperatures can have a major impact on the relative stringency of the two procedures, but the differences in these factors directionally tend to cancel each other out. As a result, the magnitude, and even the direction, of the overall difference in stringency between the two procedures is not obvious and must be determined empirically.

Therefore, in an effort to minimize the regulatory burden on manufacturers while maintaining effective control of evaporative emissions, EPA and CARB have initiated an investigative program, with support from the auto manufacturers, to resolve this relative stringency issue. Data from this test program, as well as from other relevant sources, will be placed in the public docket for this rulemaking. If these investigations lead to a finding that one procedure is significantly more stringent, manufacturers may be able to use that procedure to satisfy both agencies' testing requirements, although both agencies would have to find the procedure acceptable. EPA expects this investigation to be completed by the end of September 1995.

EPA expects that the CARB and EPA evaporative emission requirements will be harmonized (except for test fuel and temperature specifications) before promulgation of the National LEV final rule. At this time, EPA has insufficient data to conclude that use of the California test conditions, as proposed in this notice, would represent a significant loss in stringency relative to testing with the federal fuel and test temperature. Therefore, EPA is proposing to conduct certification of vehicles under the National LEV program using the federal procedure contained in the CFR, modified to specify California test fuel and test temperatures. Use of the CARB test fuel

for evaporative emissions testing would allow manufacturers to run the evaporative test in sequence with the exhaust emission test, which requires the CARB fuel, without switching fuels. If manufacturers had to switch fuels between exhaust emissions testing and evaporative emissions testing, the resulting testing required for certification would be more complex and more costly to run. Therefore, the Agency solicits comments on how the CARB procedure might be retained for use in the National LEV program if EPA finds that the EPA procedure is significantly more stringent. EPA specifically seeks comment on whether use of federal fuel and test temperature should be required for vehicles certified under the National LEV Program. If EPA's test fuel and temperature conditions are found to be significantly more stringent than CARB's, EPA would examine the impact of this finding on the National LEV evaporative emissions requirements to ensure continued compliance with Clean Air Act requirements for control of evaporative emissions. Vehicles certified in the National LEV program will be subject to the federal standards and implementation schedules set in the evaporative emissions rule.

### 3. Certification Short Test (CST)

In November 1993, EPA promulgated the CST, based on Section 202(a) of the amended CAA (58 FR 58382). The CST requires manufacturers to demonstrate at the time of new-vehicle certification that their LDV and LDT designs, when properly used and maintained, will pass the emissions short test procedures approved by EPA for use in state and local I/M programs.<sup>32</sup> In addition to simulating the I/M test procedures themselves, the CST protocol includes test conditions reasonably expected to be encountered by vehicles in I/M programs, such as test fuel, test temperatures, and simulated vehicle queue or wait times. The Agency may revise the CST regulations as necessary to ensure the ability of future vehicle designs to pass new performance warranty procedures adopted under the authority of Section 207(b) of the Act.

<sup>32</sup> These short tests are commonly referred to as the "emissions performance warranty" or "207(b)" procedures. The Agency has promulgated a menu of these procedures based on the requirements of Section 207(b) of the Act that the procedures are available, consistent with good engineering practice, and show reasonable correlation to the Federal Test Procedure. 40 CFR part 85, subpart W. I/M programs must choose from among the 207(b) procedures if vehicle owners in their jurisdictions are to be eligible for Federal emissions performance warranty coverage.

California I/M regulations lack the menu of I/M test procedures that is available nationally, and CARB certification procedures do not require manufacturers to verify the ability of their vehicles to pass I/M tests across the range of I/M test conditions found nationwide. As a consequence, EPA finds that there is no adequate California counterpart to the Federal CST requirement. Thus, the National LEV program would subject all vehicles, including those certified under the National LEV program, to the Federal CST regulations.

### 4. Federal Test Procedure Revisions

On February 7, 1995, EPA proposed regulations under Section 206(h) of the CAA for additions and revisions to the FTP, the core procedure used for certification and compliance testing of LDVs and LDTs. 60 FR 7404 (February 7, 1995). The focus of this "FTP Review" proposal was the addition of a Supplemental Federal Test Procedure (SFTP) and associated emission standards. The current FTP only measures "on-cycle" emissions. The SFTP, as proposed, is designed to add coverage of "off-cycle" emissions to the FTP, including emissions arising from aggressive (high-speed and/or high-acceleration) driving, rapid speed fluctuations, driving behavior following startup, air conditioning, and intermediate-duration periods where the engine is turned off. The proposed FTP off-cycle emission standards took into consideration the vehicle technologies that would prevail under the current (Tier 1) Federal tailpipe emission standards. EPA is proposing that the National LEV program would be structured such that vehicles certified under the National LEV program would become subject to the revised FTP standards and procedures once those regulations are finalized.

The California Air Resources Board is considering adoption of similar FTP regulations applicable to the California light-duty fleet, but final action by CARB is not likely to occur before final action on the Federal FTP Review rulemaking. EPA and CARB have stated their intent to harmonize the revised FTP procedures to the maximum extent possible, and EPA anticipates that these efforts will be reflected both in EPA's final revised FTP rule and in subsequent CARB action.

One example of this harmonization concerns the test fuel for SFTP testing. As noted above in Section III.B.5, the fuel for conventional FTP testing of National LEV vehicles will be California Phase II reformulated test fuel. (The Agency anticipates that CARB will

ultimately employ this fuel for SFTP testing in California as well.) In order to preclude the need for fuel switches between FTP and SFTP testing of National LEV vehicles, EPA expects to incorporate in the final FTP Review rulemaking the option for manufacturers who are certifying National LEV vehicles to employ California Phase II fuel during SFTP testing.

If CARB eventually adopts SFTP procedures that are harmonized with EPA's, but applies more stringent standards based on the cleaner technologies of California LEV and ULEV vehicles, EPA intends to amend the revised FTP regulations such that National LEV vehicles would be required to comply with the California off-cycle standards, rather than the federal off-cycle standards based on the use of prevailing federal (Tier 1) technologies.

### 5. High Altitude

Section 206(f) of the CAA requires that all LDVs manufactured after MY 1985, and all LDTs manufactured after MY 1995, comply with the requirements of section 202 regardless of the altitude at which they are sold. EPA promulgated regulations to implement this requirement as part of the Tier 1 tailpipe standards rulemaking (56 FR 25724) and the enhanced evaporative emissions requirement (58 FR 16002). To ensure that National LEV program vehicles comply with the mandatory section 202 emissions requirements at all altitudes, EPA is proposing to apply the current high altitude regulations to the National LEV program. Therefore, vehicles certifying to the National LEV program standards must demonstrate compliance with the requirements that EPA has mandated under section 202, including the Tier 1 tailpipe standards in sections 202 (g) and (h), the cold CO requirements in section 202(j), and the evaporative emissions requirement in section 202(k). The high altitude compliance requirements would require use of the appropriate federal certification test fuel for the given test procedure, as defined in 40 CFR § 86.113.

### C. Federal Compliance Requirements

#### 1. Selective Enforcement Auditing and Quality Audit Programs

Pursuant to CAA section 206(b), the Administrator is authorized to test new motor vehicles to determine whether vehicles being manufactured do, in fact, conform to the regulations with respect to which a certificate of conformity was issued. Therefore, vehicles certified to meet any of the National LEV emission

standards and requirements would be subject to those standards and requirements in a Selective Enforcement Audit (SEA). These vehicles would be additionally subject to all other federal emission standards and requirements, including cold CO standards, fuel dispensing spitback standards and/or on-board vapor recovery standards, and Certification Short Test standards in an SEA.

During an SEA, a manufacturer will conduct testing of an engine family configuration certified to the National LEV standards using the same test procedures, test fuel, and reactivity adjustment factors, if applicable, that were used in the certification process for that family. Selected SEA vehicles will be tested until a pass decision has been reached for all pollutants or a fail decision has been reached for one pollutant. The National LEV standards are subject to the same 40% Acceptable Quality Level (AQL) as conventional federal exhaust standards.

In the event of an audit failure of a configuration certified to the National LEV standards, the certificate of conformity for the selected configuration may be suspended, and depending on the required remedy for the nonconformity, revoked, as has historically occurred with audit failures of configurations certified to conventional federal standards.

EPA's authority to suspend and/or revoke certificates of conformity in the manner described above is found in § 206(b) (1) and (2) of the CAA, which states that EPA may suspend and/or revoke certificates in whole or in part (i.e., for a family or a configuration) if the Administrator determines that vehicles in a family or configuration do not conform with applicable regulations. This determination may be based on tests conducted by EPA directly, or by a manufacturer in accordance with conditions specified by EPA. Those conditions are described in 40 CFR part 86: subpart B and R, the Federal Test Procedure; subpart C, the Cold Temperature CO Test Procedure; and/or subpart O, the Certification Short Test Procedure.

EPA expects that the promulgation of National LEV standards and the harmonization of other federal and California requirements will allow manufacturers to certify an increasing number of engine families to both California and National LEV standards (50-state engine families). This provides an opportunity for EPA to utilize its enforcement resources more efficiently and reduce the testing burden on manufacturers by coupling the SEA and

corresponding CARB requirements for 50-state families and configurations.

The California Assembly-Line Test Procedures for 1983 and subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles require manufacturers to perform Quality-Audits on each engine family in production. Engines are tested in a manner substantially similar to comparable federal requirements. The Assembly-Line Test Procedures also require manufacturers to perform an Inspection Test on all 1985 and subsequent model year vehicles. The Inspection Test consists of functionally testing the emission control components and systems on each vehicle. Any vehicle that passes the approved functional test is considered to be in compliance with the Inspection Test Procedures. In addition to the Assembly-Line Test Procedures, CARB has a program that is similar to EPA's SEA program. The California New Vehicle Compliance Test procedures allow CARB to order a manufacturer to deliver a reasonable number of vehicles for compliance testing or inspection. Vehicles are selected at random and if, based on the testing, CARB determines that an engine family or subgroup exceeds emission standards for one or more pollutants, CARB will require the manufacturer to bring the vehicles into compliance.

Historically, if manufacturer testing required by CARB led CARB to determine that a 50-state engine family or configuration is in non-compliance with an applicable standard, CARB would require the manufacturer to take remedial action to correct the problem. However, CARB may be concerned primarily about the vehicles that will be sold in California, and the required remedial action may only address those vehicles, possibly leaving the rest of the family in non-compliance. EPA's only recourse upon discovering 50-state non-compliance through CARB-required testing is to issue the manufacturer an SEA test order for the configuration. The manufacturer would then have to conduct duplicate testing for that configuration. If the configuration (which CARB had already determined to be in non-compliance) failed the audit, EPA would suspend and/or possibly revoke the certificate of conformity. The manufacturer would then have to develop a fix for the non-conformity and conduct and pass a re-audit to comply with EPA requirements, as well as comply with CARB's remedial action plan.

This notice proposes a process to reduce this duplicative testing and remediation. If CARB has determined

that a 50-state engine family or configuration is in non-compliance, based on manufacturer testing required by CARB, EPA would be able to take appropriate action without requiring the manufacturer to conduct duplicate testing. EPA would evaluate test data received from CARB or directly from a manufacturer for a family or configuration that CARB has determined to be in non-compliance with any applicable standard. If testing was conducted in a manner substantially similar to comparable federal requirements, EPA would evaluate the test data with respect to the 40% AQL sampling plans found in Appendices X and XI to part 86 to determine compliance with applicable federal standards. EPA believes the random sampling manufacturers use to select vehicles for CARB-required testing will provide a representative family or configuration sample, which can be appropriately evaluated with respect to the 40% AQL criteria. If the test data for the family or configuration does not meet the 40% AQL, EPA would determine the family or configuration to be in non-compliance, and EPA would have authority to suspend and/or revoke the certificate of conformity for the 50-state family or configuration. Additionally, subsequent to a suspension or revocation, the proposal allows EPA to reinstate or reissue a certificate, upon a manufacturer's written request, after the manufacturer has agreed to comply with remedial action required by CARB, if EPA believes the action is an effective remedy for the entire family or configuration. The manufacturer would not have to conduct a re-audit of the suspended/revoked configuration.

Because EPA's authority to suspend or revoke certificates is based on testing conducted by EPA or the manufacturer in accordance with appropriate federal regulations, EPA will only suspend or revoke certificates in the manner described above if the manufacturer has conducted the testing. EPA will work cooperatively with CARB and manufacturers in considering all information provided by the manufacturer prior to suspending, revoking, and reissuing certificates of conformity in these instances. As with any suspension or revocation of a certificate of conformity, a manufacturer that disagrees with EPA's decision to suspend or revoke a certificate may request a public hearing within 15 days of EPA's suspension or revocation decision.

In the event these National LEV Standards are not promulgated, EPA is proposing still to promulgate the

necessary regulation changes to subparts G and K to enable EPA to suspend, revoke, and reinstate certificates of conformity for 50-state families as described above.

## 2. Imports

EPA requires that non-conforming motor vehicles (i.e., motor vehicles not covered by a certificate of conformity) being imported into the U.S. for use in any state, including California, meet the federal emission standards as well as all other certification requirements, such as labeling and warranty. EPA generally permits only independent commercial importers (ICIs) to import non-conforming vehicles, and those vehicles must meet the emission standards applicable to the year in which the vehicles are modified. Under section 216 of the Act, an ICI is deemed to be a manufacturer. However, ICIs do not generally build new vehicles, rather, they modify previously manufactured nonconforming vehicles to comply with federal emission standards. EPA does not expect that ICIs will opt into the National LEV program, due to the very limited number and wide range of model years of the annually imported vehicles.<sup>33</sup> Therefore, EPA proposes that vehicles imported under the imports program will not be covered vehicles under the National LEV program and need not meet the National LEV standards. However, EPA will allow ICIs to certify imported nonconforming vehicles to any applicable emissions standard, including the National LEV standards, if they so choose.

EPA regulates imported nonconforming vehicles under the authority of section 203(a)(1) and (b)(2). EPA's current imports regulations depend on the age of the vehicle. 40 CFR §§ 85.1503, 85.1509. EPA requires that vehicles less than six years old be covered by a certificate of conformity. EPA also requires that vehicles six years old or older be modified (if necessary) and meet the certification emission standards applicable to the year in which the vehicles are modified (rather than the year the vehicles were originally manufactured). EPA exempts non-conforming vehicles greater than 20 years old. 40 CFR § 1511(f).

The CARB import regulations similarly impose different emissions requirements depending on the age of the vehicles. Vehicles less than two years old must meet all the certification requirements applicable to manufacturers of new vehicles, while older vehicles are subject to other less

stringent requirements. CARB does not consider modifiers of non-conforming vehicles to be manufacturers and indicates that no modifier has thus far obtained new vehicle certification. If a modifier of non-conforming vehicles does obtain new vehicle certification in the future, CARB has not yet determined whether those vehicles will be required to meet the weighted average NMOG standard for their model year "production", as manufacturers must, or the California Tier 1 standard for every vehicle.

In a separate notice, EPA has proposed a number of amendments to the federal importation requirements.<sup>34</sup> One of those amendments would allow imported non-conforming LDVs and LDTs to meet the emission standards applicable to the year they were originally manufactured (consistent with the CARB requirements), rather than the year they are modified. Another of those amendments would prohibit the ICIs from participating in the averaging, banking, and trading provisions of 40 CFR Part 86. EPA expects to promulgate these amendments later this year.

Given that ICIs do not generally build new motor vehicles, EPA believes it is not necessary for ICIs to opt into National LEV or likely that they will do so. While the National LEV standards are voluntary, they are potentially applicable standards. Therefore, EPA proposes that ICIs be allowed to certify imported vehicles to any of the applicable federal emissions standards, including the National LEV standards. The ICIs will not, however, be permitted to participate in averaging, banking or trading because ICIs do not control, nor can they predict, their yearly production, making potential compliance with the NMOG average unpredictable.

The imports provisions of the National LEV Program will depend on promulgation of the amendments to the imports regulations at 40 CFR Part 85, Subpart P proposed on March 24, 1994. If EPA promulgates the proposed amendments to the imports regulations, EPA proposes one additional change to the federal importation requirements to accommodate the National LEV Program. The March 24, 1994 proposal would require that each LDV and LDT originally manufactured in 1993 and earlier model years and subsequently imported by an ICI (regardless of the year of modification) be required to meet the emission standards of the new section 85.1516 and that each LDV and LDT originally manufactured after the

1993 model year be required to meet the emissions standards of Part 86 applicable to the year in which the vehicle was originally manufactured. Thus, non-conforming vehicles manufactured on or after 1996 (the model year in which federal Tier 1 emission standards are applicable to small volume manufacturers, such as ICIs) would be required to meet the federal Tier 1 emission standards. Today's proposal would amend that requirement to allow the ICIs to voluntarily certify or test vehicles to any of the federal emission standards applicable to the year the vehicles were originally manufactured, including National LEV emission standards. In all cases, the ICIs would be prohibited from participating in any averaging, banking or trading programs (see 40 CFR 85.1516(d) of the March 24, 1994 NPRM).

If EPA does not promulgate the proposed amendments to the imports regulations, EPA proposes two changes to the federal importation requirements to accommodate the National LEV Program. First, EPA is including in today's proposal the provision from the March 24, 1994 NPRM that proposes that ICIs be prohibited from participating in averaging, banking, and trading. Second, this proposal would allow the ICIs to voluntarily certify or test vehicles to any of the federal emission standards, including the National LEV standards, applicable for the year in which the vehicles are modified, regardless of the year they were originally manufactured.

## 3. In-Use and Warranty Requirements

The in-use testing and recall provisions of the federal program would not be changed by the terms of the voluntary agreement. EPA would continue to follow its procedures in conducting in-use testing to determine vehicle compliance with the relevant certified emissions standards. California would continue to implement its in-use testing and recall program unaffected by the voluntary agreement. While the operation of both recall programs is substantially similar, each program has different enforcement goals necessitated by differing statutory authority as well as considerations attributed to running a state-wide versus a nationwide enforcement program. However, there is no additional burden on the manufacturers attributed to operation of two enforcement programs because vehicles will be tested using the same procedures used in certification, thereby removing the need for manufacturers to comply with two different sets of enforcement testing procedures.

<sup>33</sup> ICIs generally account for approximately 200 vehicles per year in total sales.

<sup>34</sup> 59 FR 13912, March 24, 1994.

Similarly, the federal warranty requirements under section 207 would continue to apply to vehicles produced under the voluntary standards program. California warranty requirements would apply only to vehicles produced for California. EPA will also continue using its own defect reporting requirements which, unlike California's regulations, do not mandate different levels of reporting based on certain numbers of warranty claims on specified emission control components.

## VII. Effective Date

EPA is proposing to make these regulations effective upon signature of the final rule. If EPA adopts this approach, it would make the final rule available to interested parties upon signature. Although EPA generally makes rules effective 30 days after date of publication, it is not bound to do so. See section 307(d)(1) of the Clean Air Act, 42 U.S.C. 7607(d), and the Administrative Procedure Act, 5 U.S.C. 553(d).

EPA believes that it would be impracticable, unnecessary, and contrary to the public interest to delay the effective date until 30 days after publication. States in the OTR that need to adopt OTC LEV in the absence of the National LEV program must cure their SIP deficiencies by February 15, 1996. Thus, the OTR States need to know before then whether the motor vehicle manufacturers will opt in, which would enable EPA to find National LEV to be in effect and be deemed to satisfy the OTC LEV SIP call. In addition, these regulations will not impose any immediate burden on affected parties requiring lead time for compliance. Rather, the regulations will merely allow manufacturers to voluntarily opt into the program. Moreover, once a manufacturer has opted in, there would be significant leadtime before it must comply with the National LEV tailpipe emissions standards.

EPA is also taking comment on making the rule effective upon publication in the **Federal Register** or 30 days after such publication.

## VIII. Public Participation

### A. Comments and the Public Docket

The Agency welcomes comments on all aspects of this proposed rulemaking. All comments (preferably in triplicate), with the exception of proprietary information, should be directed to the EPA Air Docket Section, Docket No. A-95-26 (see **ADDRESSES**). Commenters who wish to submit proprietary information for consideration should

clearly separate such information from other comments by:

- labeling proprietary information "Confidential Business Information" and
- sending proprietary information directly to the contact person listed (see **FOR FURTHER INFORMATION CONTACT**) and not to the public docket.

This will help ensure that proprietary information is not inadvertently placed in the docket. If a commenter wants EPA to use a submission labeled as confidential business information as part of the basis for the final rule, then a nonconfidential version of the document, which summarizes the key data or information, should be sent to the docket.

Information covered by a claim of confidentiality will be disclosed by EPA only to the extent allowed and by the procedures set forth in 40 CFR Part 2. If no claim of confidentiality accompanies the submission when it is received by EPA, the submission may be made available to the public without notifying the commenters.

### B. Public Hearing

Anyone wishing to present testimony about this proposal at the public hearing, should one be requested, (see **DATES**) should, if possible, notify the contact person (see **FOR FURTHER INFORMATION CONTACT**) at least two business days prior to the day of the hearing. The contact person should be given an estimate of the time required for the presentation of testimony and notification of any need for audio/visual equipment. A sign-up sheet will be available at the registration table the morning of the hearing for scheduling those who have not notified the contact earlier. This testimony will be scheduled on a first-come, first-served basis, and will follow the testimony that is arranged in advance.

The Agency recommends that approximately 50 copies of the statement or material to be presented be brought to the hearing for distribution to the audience. In addition, EPA would find it helpful to receive an advance copy of any statement or material to be presented at the hearing at least two business days before the scheduled hearing date. This is to give EPA staff adequate time to review such material before the hearing. Such advance copies should be submitted to the contact person listed.

## IX. Administrative Requirements

### A. Administrative Designation

Under Executive Order 12866 (58 FR 51735), the Agency must determine

whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) 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;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) 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, it has been determined that this rule is a "significant regulatory action" because of annual impacts on the economy that are likely to exceed \$100 million. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

### B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1990 requires federal agencies to identify potentially adverse impacts of federal regulations upon small entities. In instances where significant impacts are possible on a substantial number of these entities, agencies are required to perform a Regulatory Flexibility Analysis (RFA).

The Agency has determined that this action will not have a significant impact on a substantial number of small entities. This regulation will affect only manufacturers of motor vehicles, a group which does not contain a substantial number of small entities.

Therefore, as required under section 605 of the Regulatory Flexibility Act, 5 U.S.C. 601 *et. seq.*, I certify that this regulation does not have a significant impact on a substantial number of small entities.

### C. Unfunded Mandates Reform Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a federal mandate that may result in estimated costs to state,

local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. For rules subject to section 202, under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements.

EPA has determined that the above requirements do not apply to the rule proposed here, and thus do not require EPA to conduct further analyses pursuant to those requirements. These unfunded mandates provisions only apply to federal mandates. National LEV is a voluntary program, which would implement an agreement reached between the OTR States and the motor vehicle manufacturers. Because National LEV would not impose a federal mandate on any party, and in fact would relieve certain states of a regulatory obligation, these unfunded mandates provisions do not apply to this proposed rule. Even if these unfunded mandates provisions did apply to this proposal, they are met by the Regulatory Impact Analysis prepared pursuant to E.O. 12866 and contained in the docket.

Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule. EPA has not prepared such a plan because small governments would not be significantly or uniquely impacted by the rule.

#### *D. Reporting and Recordkeeping Requirements*

The information collection requirements 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.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1761.01) and a copy may be obtained from Sandy Farmer, Information Policy Branch, EPA, 401 M St., SW (Mail Code 2136), Washington, DC 20460 or by calling (202) 260-2740.

The proposed information collection would be conducted to support the averaging, banking and trading provisions included in the National LEV program. These averaging, banking and trading provisions would give automobile manufacturers a measure of flexibility in meeting the fleet average NMOG standards and the five-percent cap on Tier 1 vehicles and TLEVs in the OTR. EPA would use the reported data to calculate credits and debits and otherwise ensure compliance with the applicable production levels. When a

manufacturer has opted into the voluntary National LEV program, reporting would be mandatory as per the proposed regulations included in this rulemaking. This rulemaking would not change the requirements regarding confidentiality claims for submitted information, which are generally set out in 40 CFR part 2.

The information collection burden associated with this rule (testing, recordkeeping and reporting requirements) is estimated to average 183.3 hours annually for a typical manufacturer. It is expected that approximately 60 manufacturers will provide an annual report to EPA. However, the hours spent annually on information collection activities by a given manufacturer depends upon manufacturer-specific variables, such as the number of engine families, production changes, emissions defects, and so forth. The burden estimate includes such things as reviewing instructions, searching existing data sources, setting up and maintaining equipment, gathering and maintaining data, performing analyses, and reviewing and submitting information.

This estimate also includes the time needed to: review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2136); 401 M St., S.W., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., N.W., Washington, D.C. 20503, marked "Attention: Desk Officer for

EPA." Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after October 10, 1995, a comment to OMB is best assured of having its full effect if OMB receives it by November 9, 1995. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

#### **List of Subjects**

##### *40 CFR Part 51*

Administrative practice and procedure, Air pollution control, Environmental protection, Carbon monoxide, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Transportation, Volatile organic compounds.

##### *40 CFR Part 85*

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

##### *40 CFR Part 86*

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

Dated: September 27, 1995.

**Carol M. Browner,**  
*Administrator.*

For the reasons set out in the preamble, title 40 chapter I of the Code of Federal Regulations is proposed to be amended as follows:

#### **PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS**

1. The authority citation for part 51 continues to read as follows:

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

#### **Subpart G—[Amended]**

2. Section 51.121 is proposed to be added to subpart G, to read as follows:

##### **§ 51.121 National LEV program as alternative to OTC LEV.**

(a) The voluntary national low emission vehicle (National LEV or NLEV) program for the control of emissions from new motor vehicles described in 40 CFR part 86, subpart R, is an acceptable alternative for OTC LEV. If EPA finds that the NLEV program is in effect, then the inadequacy of State Implementation Plans found in § 51.120(a) shall be

deemed cured until such time as the Administrator determines that the NLEV program is no longer in effect.

(b)(1) EPA shall find that the NLEV program is in effect if the following conditions have been met:

(i) All manufacturers listed in paragraph (d) of this section have lawfully opted in pursuant to 40 CFR 86.1705-97;

(ii) No manufacturer has lawfully opted out or no opt-out has become effective pursuant to 40 CFR 86.1705-97; and

(iii) The NLEV program has not terminated pursuant to 40 CFR 86.1701-97(c).

(2) On or before [date 60 days from date of signature of final rule], EPA shall determine whether the NLEV program is in effect, and shall subsequently publish this determination.

(3) In determining whether the NLEV program is in effect under paragraph (b) of this section, EPA shall consider opt-in submissions received by [date 45 days from signature of final rule], although subsequent opt-in submissions may be considered at the Agency's discretion.

(4) A finding pursuant to paragraph (b)(1) of this section shall become effective at time of promulgation.

(c) Upon either a manufacturer's opt-out that has become effective pursuant to 40 CFR 86.1705-97, or entry into the market by a motor vehicle manufacturer not listed in paragraph (d) of this section, EPA may reevaluate whether the NLEV program is still in effect for purposes of curing the § 51.120(a) State Implementation Plan inadequacy. If EPA determines that the NLEV program is no longer in effect, the inadequacy of State Implementation Plans found in § 51.120(a) would no longer be deemed cured.

(d) List of manufacturers of light-duty vehicles and light-duty trucks:

- Audi
- Baker Equipment
- BMW of North America
- Chrysler Corporation
- Diamond Star Motors
- Ferrari

- Fiat Auto S.p.A.
- Ford Motor Company
- Fuji Heavy Industries Ltd.
- General Motors Corporation
- Grumman Allied Industries
- American Honda Motor Company, Inc.
- Hyundai Motor Corporation
- Isis Imports Ltd.
- Isuzu Motors Ltd.
- Jaguar Cars Inc.
- Kia Motors Corporation
- Lamborghini
- Lotus Cars Ltd.
- Mazda Motor Corporation
- Mercedes-Benz of North America, Inc.
- Mitsubishi Motors Australia Ltd.
- Mitsubishi Motors Corporation
- New United Motor Manufacturing, Inc.
- Nissan Motor Company, Ltd.
- Panoz Auto-Development Corporation
- Dr.Ing.H.C.Porsche AG
- Rolls-Royce Motor Cars Ltd.
- Rover Group Ltd.
- Saab
- American Suzuki Motor Corporation
- Toyota Motor Corporation
- Volkswagen of America, Inc.
- Volvo Cars of North America, Inc.

**PART 85—CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES AND MOTOR VEHICLE ENGINES**

3. The authority citation for part 85 is revised to read as follows:

**Authority:** 42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7542, 7546, and 7601(a).

**Subpart P—[Amended]**

4. Section 85.1505 is proposed to be amended by revising paragraph (b) to read as follows:

**§ 85.1505 Final admission of certified vehicles.**

\* \* \* \* \*

(b) EPA approval for final admission of a vehicle or engine under this section shall be presumed not to have been granted if a vehicle has not been properly modified to be in conformity in all material respects with the description in the application for certification or has not complied with the provisions of paragraph (a)(2) of this section or its final FTP results, adjusted by the deterioration factor, if applicable, do not comply with applicable emission

standards. The emissions standards of 40 CFR part 86, subpart R, may be considered applicable emission standards at the option of the ICI, except that emissions averaging, banking and trading under 40 CFR part 86, subpart R, are prohibited.

\* \* \* \* \*

5. Section 85.1509 is proposed to be amended by revising paragraph (h) to read as follows:

**§ 85.1509 Final admission of modification and test vehicles.**

\* \* \* \* \*

(h) EPA approval for final admission of a vehicle or engine under this section shall be presumed not to have been granted if a vehicle's final FTP results, adjusted by the deterioration factor, if applicable, do not comply with applicable emission standards. The emissions standards of 40 CFR part 86, subpart R, may be considered applicable emissions standards at the option of the ICI, except that emissions averaging, banking and trading under 40 CFR part 86, subpart R, are prohibited.

\* \* \* \* \*

**PART 86—CONTROL OF AIR POLLUTION FROM NEW AND IN-USE MOTOR VEHICLES AND NEW AND IN-USE MOTOR VEHICLE ENGINES: CERTIFICATION AND TEST PROCEDURES**

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

**Authority:** Secs. 202, 203, 205, 206, 207, 208, 215, 216, 217, and 301(a), Clean Air Act, as amended (42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7542, 7549, 7550, 7552, and 7601(a)).

7. Section 86.1 is proposed to be amended by revising the entry for ASTM E29-90 in the table in paragraph (b)(1) and by adding paragraph (b)(5) to read as follows:

**§ 86.1 Reference materials.**

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

Document no. and name

40 CFR part 85 reference

ASTM E29-90, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications. 89.609-84; 86.609-96; 86.609-97; 86.609-98; 86.1009-84; 86.1009-96; 86.1442; 86.1708-97; 86.1709-97; 86.1710-97

(5) *California Air Resources Board Test Procedures.* The following table sets forth material from Title 13, California Code of Regulations, Sections 1900-2317, as amended by California Air Resources Board Resolution 94-67 and published in California Air Resources Board mail out #95-03" which has been incorporated by reference. The first column lists the number and name of the material. The second column lists the section(s) of this part, other than § 86.1, in which the material is referenced. The second column is presented for information only and may not be all-inclusive.

Document no. and name	40 CFR part 86 reference
State of California; Air Resources Board: California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as amended September 22, 1993.	86.1702-97, 86.1703-97, 86.1708-97, 86.1709-97, 86.1713-97, 86.1716-97, 86.1721-97, 86.1723-97, 86.1724-97, 86.1725-97, 86.1726-97, 86.1728-97, 86.1734-97, 86.1738-97, 86.1739-97, 86.1771-97, 86.1772-97, 86.1773-97, 86.1775-97, 86.1776-97, 86.1777-97
State of California; Air Resources Board: California Motor Vehicle Emission Control Label Specifications.	86.1735-97
State of California; Air Resources Board: California Non-Methane Organic Gas Test Procedures.	86.1702-97, 86.1708-97, 86.1709-97, 86.1772-97, 86.1774-97, 86.1775-97, 86.1776-97
State of California; Air Resources Board: Amendments to Regulations Regarding On-Board Diagnostic System Requirements for 1994 and Later Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines (OBD II).	86.1717-97

### Subpart A—[Amended]

8. Section 86.090-2 is proposed to be amended by revising the definition for "Flexible fuel vehicle (or engine)" and adding a new definition in alphabetical order for "Dual fuel vehicle (or engine)," to read as follows:

#### § 86.090-2 Definitions.

\* \* \* \* \*

*Dual fuel vehicle (or engine)* means any motor vehicle (or motor vehicle engine) engineered and designed to be operated on two different fuels, but not on a mixture of fuels.

\* \* \* \* \*

*Flexible fuel vehicle (or engine)* means any motor vehicle (or motor vehicle engine) engineered and designed to be operated on any mixture of two or more different fuels.

\* \* \* \* \*

9. A new § 86.097-1 is proposed to be added to subpart A to read as follows:

#### § 86.097-1 General applicability.

Section 86.097-1 includes text that specifies requirements that differ from those specified in § 86.094-1. Where a paragraph in § 86.094-1 is identical and applicable to § 86.097-1, this may be indicated by specifying the corresponding paragraph and the statement "[Reserved]. For guidance see § 86.094-1."

(a) through (b) [Reserved]. For guidance see § 86.094-1.

(c) *National Low Emission Vehicle Program for light-duty vehicles and light light-duty trucks.* A manufacturer may elect to certify 1997 and later model year light-duty vehicles and light light-duty trucks to the provisions of the National Low Emission Vehicle Program contained in subpart R of this part. Subpart R of this part is applicable only to those manufacturers that opt into the National Low Emission Vehicle Program, under the provisions of that subpart. All provisions of this subpart A are applicable to vehicles certified pursuant to subpart R of this part,

except as specifically noted in subpart R of this part.

(d) [Reserved].

(e) through (f) [Reserved]. For guidance see § 86.094-1.

### Subpart B—[Amended]

10. Section 86.101 is proposed to be amended by adding a paragraph (c) to read as follows:

#### § 86.101 General applicability.

\* \* \* \* \*

(c) *National Low Emission Vehicle Program for light-duty vehicles and light light-duty trucks.* A manufacturer may elect to certify 1997 and later model year light-duty vehicles and light light-duty trucks to the provisions of the National Low Emission Vehicle Program contained in subpart R of this part. Subpart R of this part is applicable only to those manufacturers that opt into the National Low Emission Vehicle Program, under the provisions of that subpart R of this part. All provisions of this subpart B are applicable to vehicles certified pursuant to subpart R of this part, except as specifically noted in subpart R of this part.

### Subpart G—[Amended]

11. Section 86.602-97 is proposed to be added to subpart G to read as follows:

#### § 86.602-97 Definitions.

Section 86.602-97 includes text that specifies requirements that differ from those specified in § 86.602-84. Where a paragraph in § 86.602-84 is identical and applicable to § 86.602-97, this may be indicated by specifying the corresponding paragraph and the statement "[Reserved]. For guidance see § 86.602-84."

(a) through (b)(8) [Reserved]. For guidance see § 86.602-84.

(b)(9) *Executive Officer* means the Executive Officer of the California Air Resources Board or his or her authorized representative.

(10) *Executive Order* means the document the Executive Officer grants a manufacturer for an engine family that certifies the manufacturer has verified the engine family complies with all applicable standards and requirements pursuant to Title 13 of the California Code of Regulations.

(11) *50-state engine family* means an engine family that meets both federal and California Air Resources Board motor vehicle emission control regulations and has received a federal certificate of conformity as well as an Executive Order.

12. Section 86.602-98 is proposed to be amended by adding paragraphs (b)(9) through (b)(11) to read as follows:

#### § 86.602-98 Definitions.

\* \* \* \* \*

(b) \* \* \*

(9) *Executive Officer* means the Executive Officer of the California Air Resources Board or his or her authorized representative.

(10) *Executive Order* means the document the Executive Officer grants a manufacturer for an engine family that certifies the manufacturer has verified the engine family complies with all applicable standards and requirements pursuant to Title 13 of the California Code of Regulations.

(11) *50-state engine family* means an engine family that meets both federal and California Air Resources Board motor vehicle emission control regulations and has received a federal certificate of conformity as well as an Executive Order.

13. Section 86.603-97 is proposed to be added to subpart G to read as follows:

#### § 86.603-97 Test orders.

Section 86.603-97 includes text that specifies requirements that differ from those specified in § 86.603-88. Where a paragraph in § 86.603-88 is identical and applicable to § 86.603-97, this may be indicated by specifying the corresponding paragraph and the

statement “[Reserved]. For guidance see § 86.603–88.”

(a) through (e) [Reserved]. For guidance see § 86.603–88.

(f) In the event evidence exists indicating an engine family is in noncompliance, the Administrator may, in addition to other powers provided by this section, issue a test order specifying the engine family the manufacturer is required to test.

14. Section 86.603–98 is proposed to be amended by adding paragraph (f) to read as follows:

**§ 86.603–98 Test orders.**

\* \* \* \* \*

(f) In the event evidence exists indicating an engine family is in noncompliance, the Administrator may, in addition to other powers provided by this section, issue a test order specifying the engine family the manufacturer is required to test.

15. Section 86.608–97 is proposed to be added to subpart G to read as follows:

**§ 86.608–97 Test procedures.**

Section 86.608–97 includes text that specifies requirements that differ from those specified in §§ 86.608–90 and 86.608–96. Where a paragraph in § 86.608–90 or § 86.608–96 is identical and applicable to § 86.608–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.608–90,” or “[Reserved]. For guidance see § 86.608–96.”

(a) The prescribed test procedures are the Federal Test Procedure, as described in subpart B and/or subpart R of this part, whichever is applicable, the cold temperature CO test procedure as described in subpart C of this part, and the Certification Short Test procedure as described in subpart O of this part. For purposes of Selective Enforcement Audit testing, the manufacturer shall not be required to perform any of the test procedures in subpart B of this part relating to evaporative emission testing, except as specified in paragraph (a)(2) of this section.

(1) [Reserved]. For guidance see § 86.608–96.

(2) The following exceptions to the test procedures in subpart B and/or subpart R of this part are applicable to Selective Enforcement Audit testing:

(i) For mileage accumulation, the manufacturer may use test fuel meeting the specifications for mileage and service accumulation fuels of § 86.113–94, or for vehicles certified to the National LEV standards, the specifications of § 86.1771–97. Otherwise, the manufacturer may use fuels other than those specified in this

section only with the advance approval of the Administrator.

(ii) [Reserved]. For guidance see § 86.608–90.

(iii) The manufacturer may perform additional preconditioning on Selective Enforcement Audit test vehicles other than the preconditioning specified in § 86.132–96, or § 86.1773–97 for vehicles certified to the National LEV standards, only if the additional preconditioning had been performed on certification test vehicles of the same configuration.

(a)(2)(iv) through (a)(2)(vii) [Reserved]. For guidance see § 86.608–90.

(viii) The manufacturer need not comply with § 86.142–90, or § 86.1775–97, since the records required therein are provided under other provisions of this subpart G.

(a)(2)(ix) through (a)(3) [Reserved]. For guidance see § 86.608–90.

(a)(4) [Reserved]. For guidance see § 86.608–96.

(b) through (i) [Reserved]. For guidance see § 86.608–90.

16. Section 86.608–98 is proposed to be amended by revising paragraphs (a) introductory text, (a)(2) introductory text, (a)(2)(i), (a)(2)(iii), and (a)(2)(viii) to read as follows:

**§ 86.608–98 Test procedures.**

(a) The prescribed test procedures are the Federal Test Procedure, as described in subpart B and/or subpart R of this part, whichever is applicable, the cold temperature CO test procedure as described in subpart C of this part, and the Certification Short Test procedure as described in subpart O of this part. For purposes of Selective Enforcement Audit testing, the manufacturer shall not be required to perform any of the test procedures in subpart B of this part relating to evaporative emission testing, other than refueling emissions testing, except as specified in paragraph (a)(2) of this section.

\* \* \* \* \*

(2) The following exceptions to the test procedures in subpart B and/or subpart R of this part are applicable to Selective Enforcement Audit testing:

(i) For mileage accumulation, the manufacturer may use test fuel meeting the specifications for mileage and service accumulation fuels of § 86.113–94, or for vehicles certified to the National LEV standards, the specifications of § 86.1771–97.

Otherwise, the manufacturer may use fuels other than those specified in this section only with the advance approval of the Administrator.

\* \* \* \* \*

(iii) The manufacturer may perform additional preconditioning on Selective Enforcement Audit test vehicles other than the preconditioning specified in § 86.132–96, or § 86.1773–97, for vehicles certified to the National LEV standards only if the additional preconditioning was performed on certification test vehicles of the same configuration.

\* \* \* \* \*

(viii) The manufacturer need not comply with § 86.142–90, § 86.155–98, or § 86.1775–97, since the records required therein are provided under other provisions of this subpart G.

\* \* \* \* \*

17. Section 86.609–97 is proposed to be added to subpart G to read as follows:

**§ 86.609–97 Calculation and reporting of test results.**

Section 86.609–97 includes text that specifies requirements that differ from those specified in §§ 86.609–84 and 86.609–96. Where a paragraph in § 86.609–84 or § 86.609–96 is identical and applicable to § 86.609–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.609–84,” or “[Reserved]. For guidance see § 86.609–96.”

(a) through (b) [Reserved]. For guidance see § 86.609–96.

(c) Final deteriorated test results—(1) *For each test vehicle.* The final deteriorated test results for each test vehicle tested according to subpart B, subpart C, or subpart R of this part are calculated by first multiplying or adding, as appropriate, the final test results by or to the appropriate deterioration factor derived from the certification process for the engine or evaporative/refueling family and model year to which the selected configuration belongs, and then by multiplying the appropriate reactivity adjustment factor, if applicable, and rounding to the same number of decimal places contained in the applicable emission standard.

Rounding is done in accordance with the Rounding-Off Method specified in ASTM E29–90, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications. This procedure has been incorporated by reference (see § 86.1). For the purpose of paragraph (c) of this section, if a multiplicative deterioration factor as computed during the certification process is less than one, that deterioration factor is one. If an additive deterioration factor as computed during the certification process is less than zero, that deterioration factor will be zero.

(c)(2) [Reserved]. For guidance see § 86.609–96.

(d) [Reserved]. For guidance see § 86.609–84.

18. Section 86.609–98 is proposed to be amended by revising paragraph (c)(1) to read as follows:

**§ 86.609–98 Calculation and reporting of test results.**

\* \* \* \* \*

(c) Final deteriorated test results—(1) *For each test vehicle.* The final deteriorated test results for each light-duty vehicle tested for exhaust emissions and/or refueling emissions according to subpart B, subpart C, or subpart R of this part are calculated by first multiplying or adding, as appropriate, the final test results by or to the appropriate deterioration factor derived from the certification process for the engine or evaporative/refueling family and model year to which the selected configuration belongs, and then by multiplying the appropriate reactivity adjustment factor, if applicable, and rounding to the same number of decimal places contained in the applicable emission standard. Rounding is done in accordance with the Rounding-Off Method specified in ASTM E29–90, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications. This procedure has been incorporated by reference (see § 86.1). For the purpose of paragraph (c) of this section, if a multiplicative deterioration factor as computed during the certification process is less than one, that deterioration factor is one. If an additive deterioration factor as computed during the certification process is less than zero, that deterioration factor will be zero.

\* \* \* \* \*

19. Section 86.612–97 is proposed to be added to subpart G to read as follows:

**§ 86.612–97 Suspension and revocation of certificates of conformity.**

Section 86.612–97 includes text that specifies requirements that differ from those specified in § 86.612–84. Where a paragraph in § 86.612–84 is identical and applicable to § 86.612–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.612–84.”

(a) The certificate of conformity is immediately suspended with respect to any vehicle failing pursuant to § 86.610–96(b) effective from the time that testing of that vehicle is completed.

(b)(1) *Selective Enforcement Audits.* The Administrator may suspend the certificate of conformity for a

configuration that does not pass a Selective Enforcement Audit pursuant to § 86.610–96(c) based on the first test, or all tests, conducted on each vehicle. This suspension will not occur before ten days after failure to pass the audit.

(2) *California Assembly-Line Quality Audit Testing.* The Administrator may suspend the certificate of conformity for a 50-state family or configuration that the Executive Officer has determined to be in non-compliance with one or more applicable pollutants based on the “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles,” if the results of vehicle testing conducted by the manufacturer do not meet the acceptable quality level criteria pursuant to § 86.610–96. The “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” are incorporated by reference. See § 86.1. A vehicle that is tested by the manufacturer pursuant to California Assembly-Line Quality Audit Test Procedures and determined to be a failing vehicle will be treated as a failed vehicle described in § 86.610–96(b), unless the manufacturer can show that the vehicle would not be considered a failed vehicle using the test procedures specified in § 86.608. This suspension will not occur before ten days after the manufacturer receives written notification that the Administrator has determined the 50-state family or configuration exceeds one or more applicable federal standards.

(c)(1) *Selective Enforcement Audits.* If the results of vehicle testing pursuant to the requirements of this subpart indicates the vehicles of a particular configuration produced at more than one plant do not conform to the regulations with respect to which the certificate of conformity was issued, the Administrator may suspend the certificate of conformity with respect to that configuration for vehicles manufactured by the manufacturer in other plants of the manufacturer.

(2) *California Assembly-Line Quality Audit Testing.* If the Administrator determines that the results of vehicle testing pursuant to the “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” indicate the vehicles of a particular 50-state engine family or configuration produced at more than one plant do not conform to applicable federal regulations with respect to which a certificate of conformity was issued, the

Administrator may suspend, pursuant to paragraph (b)(2) of this section, the certificate of conformity with respect to that engine family or configuration for vehicles manufactured in other plants of the manufacturer. The “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” are incorporated by reference. See § 86.1.

(d) The Administrator will notify the manufacturer in writing of any suspension or revocation of a certificate of conformity in whole or in part: Except, that the certificate of conformity is immediately suspended with respect to any vehicle failing pursuant to § 86.610–96(b) and as provided for in paragraph (a) of this section.

(e)(1) *Selective Enforcement Audits.* The Administrator may revoke a certificate of conformity for a configuration when the certificate has been suspended pursuant to paragraph (b)(1) or (c)(1) of this section if the proposed remedy for the nonconformity, as reported by the manufacturer to the Administrator, is one requiring a design change(s) to the engine and/or emission control system as described in the Application for Certification of the affected configuration.

(2) *California Assembly-Line Quality Audit Testing.* The Administrator may revoke a certificate of conformity for an engine family or configuration when the certificate has been suspended pursuant to paragraph (b)(2) or (c)(2) of this section if the proposed remedy for the nonconformity, as reported by the manufacturer to the Executive Officer and/or the Administrator, is one requiring a design change(s) to the engine and/or emission control system as described in the Application for Certification of the affected engine family or configuration.

(f) Once a certificate has been suspended for a failed vehicle as provided for in paragraph (a) of this section, the manufacturer must take the following actions:

(1) Before the certificate is reinstated for that failed vehicle—

(i) Remedy the nonconformity; and  
(ii) Demonstrate that the vehicle’s final deteriorated test results conform to the applicable emission standards or family particulate emission limits, as defined in this part 86 by retesting the vehicle in accordance with the requirements of this subpart.

(2) Submit a written report to the Administrator within thirty days after successful completion of testing on the failed vehicle, which contains a description of the remedy and test results for the vehicle in addition to

other information that may be required by this subpart.

(g) Once a certificate has been suspended pursuant to paragraph (b) or (c) of this section, the manufacturer must take the following actions before the Administrator will consider reinstating such certificate:

(1) Submit a written report to the Administrator which identifies the reason for the noncompliance of the vehicles, describes the proposed remedy, including a description of any proposed quality control and/or quality assurance measures to be taken by the manufacturer to prevent the future occurrence of the problem, and states the date on which the remedies will be implemented.

(2) Demonstrate that the engine family or configuration for which the certificate of conformity has been suspended does in fact comply with the requirements of this subpart by testing vehicles selected from normal production runs of that engine family or configuration at the plant(s) or the facilities specified by the Administrator, in accordance with:

(i) The conditions specified in the initial test order pursuant to § 86.603–97 for a configuration suspended pursuant to paragraph (b)(1) or (c)(1) of this section; or

(ii) The conditions specified in a test order pursuant to § 86.603–97 for an engine family or configuration suspended pursuant to paragraph (b)(2) or (c)(2) of this section.

(3) If the Administrator has not revoked the certificate pursuant to paragraph (e) of this section and if the manufacturer elects to continue testing individual vehicles after suspension of a certificate, the certificate is reinstated for any vehicle actually determined to have its final deteriorated test results in conformance with the applicable standards through testing in accordance with the applicable test procedures.

(4) In cases where the Administrator has suspended a certificate of conformity for a 50-state engine family or configuration pursuant to paragraph (b)(2) or (c)(2) of this section, manufacturers may request in writing that the Administrator reinstate the certificate of an engine family or configuration when, in lieu of the actions described in (g) (1) and (2) of this section, the manufacturer has agreed to comply with section 2108, section 2109, and/or section 2110 of Title 13, Division 3, of the California Code of Regulations, provided an Executive Order is in place for the engine family or configuration. Title 13, Division 3, of the California Code of Regulations is incorporated by reference. See § 86.1.

(h) Once a certificate for a failed engine family or configuration has been revoked under paragraph (e) (1) or (2) of this section and the manufacturer desires to introduce into commerce a modified version of that engine family or configuration, the following actions will be taken before the Administrator may issue a certificate for the new engine family or configuration:

(1) If the Administrator determines that the proposed change(s) in vehicle design may have an effect on emission performance deterioration and/or fuel economy, he/she shall notify the manufacturer within five working days after receipt of the report in paragraph (g)(1) of this section or after receipt of information pursuant to paragraph (g)(4) of this section whether subsequent testing under this subpart will be sufficient to evaluate the proposed change(s) or whether additional testing will be required.

(2) After implementing the change(s) intended to remedy the nonconformity, the manufacturer shall demonstrate:

(i) If the certificate was revoked pursuant to paragraph (e)(1) of this section, that the modified vehicle configuration does in fact conform with the requirements of this subpart by testing vehicles selected from normal production runs of that modified vehicle configuration in accordance with the conditions specified in the initial test order pursuant to § 86.603–97. The Administrator shall consider this testing to satisfy the testing requirements of § 86.079–32 or § 86.079–33 if the Administrator had so notified the manufacturer. If the subsequent testing results in a pass decision pursuant to the criteria in § 86.610–96(c), the Administrator shall reissue or amend the certificate, if necessary, to include that configuration: *Provided*, that the manufacturer has satisfied the testing requirements specified in paragraph (h)(1) of this section. If the subsequent audit results in a fail decision pursuant to the criteria in § 86.610–96(c), the revocation remains in effect. Any design change approvals under this subpart are limited to the modification of the configuration specified by the test order.

(ii) If the certificate was revoked pursuant to paragraph (e)(2) of this section, that the modified engine family or configuration does in fact conform with the requirements of this subpart by testing vehicles selected from normal production runs of that modified engine family or configuration in accordance with the conditions specified in a test order pursuant to § 86.603–97. The Administrator shall consider this testing to satisfy the testing requirements of

§ 86.079–32 or § 86.079–33 if the Administrator had so notified the manufacturer. If the subsequent testing results in a pass decision pursuant to § 86.610–96(c), the Administrator shall reissue or amend the certificate as necessary: *Provided*, that the manufacturer has satisfied the testing requirements specified in paragraph (h)(1) of this section. If the subsequent testing results in a fail decision pursuant to § 86.610–96(c), the revocation remains in effect. Any design change approvals under this subpart are limited to the modification of engine family or configuration specified by the test order.

(3) In cases where the Administrator has revoked a certificate of conformity for a 50-state engine family or configuration pursuant to paragraph (e)(2) of this section, manufacturers may request in writing that the Administrator reissue the certificate of an engine family or configuration when, in lieu of the actions described in paragraphs (h)(1) and (2) of this section, the manufacturer has complied with section 2108, section 2109, and/or section 2110 of Title 13, Division 3, of the California Code of Regulations, provided an Executive Order is in place for the engine family or configuration. Title 13, Division 3, of the California Code of Regulations is incorporated by reference. See § 86.1.

(i) and (j) [Reserved]. For guidance see § 86.612–84.

(k) To permit a manufacturer to avoid storing non-test vehicles when conducting testing of an engine family or configuration subsequent to suspension or revocation of the certificate of conformity for that engine family or configuration pursuant to paragraph (b), (c), or (e) of this section, the manufacturer may request that the Administrator conditionally reinstate the certificate for that engine family or configuration. The Administrator may reinstate the certificate subject to the condition that the manufacturer consents to recall all vehicles of that engine family or configuration produced from the time the certificate is conditionally reinstated if the engine family or configuration fails the subsequent testing and to remedy any nonconformity at no expense to the owner.

20. Section 86.614–84 is proposed to be amended by revising paragraph (c)(2)(ii)(A) to read as follows:

**§ 86.614–84 Hearings on suspension, revocation, and voiding of certificates of conformity.**

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

- (2) \* \* \*
- (ii) \* \* \*

(A) Whether tests were conducted in accordance with applicable regulations;

\* \* \* \* \*

**Subpart K—[Amended]**

21. Section 86.1002–97 is proposed to be added to subpart K to read as follows:

**§ 86.1002–97 Definitions.**

(a) The definitions in this section apply to this subpart.

(b) As used in this subpart, all terms not defined in this section have the meaning given them in the Act.

*Acceptable quality level (AQL)* means the maximum percentage of failing engines or vehicles, that for purposes of sampling inspection, can be considered satisfactory as a process average.

*Axle ratio* means all ratios within <3% of the axle ratio specified in the configuration in the test order.

*Compliance level* means an emission level determined during a Production Compliance Audit pursuant to subpart L of this part.

*Configuration* means a subclassification, if any, of a heavy-duty engine family for which a separate projected sales figure is listed in the manufacturer's Application for Certification and which can be described on the basis of emission control system, governed speed, injector size, engine calibration, and other parameters which may be designated by the Administrator, or a subclassification of a light-duty truck engine family/ emission control system combination on the basis of engine code, inertia weight class, transmission type and gear ratios, axle ratio, and other parameters which may be designated by the Administrator.

*Executive Officer* means the Executive Officer of the California Air Resources Board or his or her authorized representative.

*Executive Order* means the document the Executive Officer grants a manufacturer for an engine family that certifies the manufacturer has verified the engine family complies with all applicable standards and requirements pursuant to Title 13 of the California Code of Regulations.

*50-state engine family* means an engine family that meets both federal and California Air Resources Board motor vehicle emission control regulations and has received a federal certificate of conformity as well as an Executive Order.

*Inspection criteria* means the pass and fail numbers associated with a particular sampling plan.

*Test engine* means an engine in a test sample.

*Test sample* means the collection of vehicles or engines of the same configuration which have been drawn from the population of engines or vehicles of that configuration and which will receive exhaust emission testing.

*Test vehicle* means a vehicle in a test sample.

22. Section 86.1002–2001 is proposed to be amended by adding paragraphs (b)(8) through (b)(11) to read as follows:

**§ 86.1002–2001 Definitions.**

\* \* \* \* \*

- (b) \* \* \*

(8) *Axle ratio* means all ratios within <3% of the axle ratio specified in the configuration in the test order.

(9) *Executive Officer* means the Executive Officer of the California Air Resources Board or his or her authorized representative.

(10) *Executive Order* means the document the Executive Officer grants a manufacturer for an engine family that certifies the manufacturer has verified the engine family complies with all applicable standards and requirements pursuant to Title 13 of the California Code of Regulations.

(11) *50-state engine family* means an engine family that meets both federal and California Air Resources Board motor vehicle emission control regulations and has received a federal certificate of conformity as well as an Executive Order.

23. Section 86.1003–97 is proposed to be added to subpart K to read as follows:

**§ 86.1003–97 Test orders.**

Section 86.1003–97 includes text that specifies requirements that differ from those specified in § 86.1003–90. Where a paragraph in § 86.1003–90 is identical and applicable to § 86.1003–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1003–90.”

(a) through (f) [Reserved]. For guidance see § 86.1003–90.

(g) In the event evidence exists indicating an engine family is in noncompliance, the Administrator may, in addition to other powers provided by this section, issue a test order specifying the engine family the manufacturer is required to test.

24. Section 86.1003–2001 is proposed to be amended by adding paragraph (g) to read as follows:

**§ 86.1003–2001 Test orders.**

\* \* \* \* \*

(g) In the event evidence exists indicating an engine family is in

noncompliance, the Administrator may, in addition to other powers provided by this section, issue a test order specifying the engine family the manufacturer is required to test.

25. Section 86.1008–97 is proposed to be added to subpart K to read as follows:

**§ 86.1008–97 Test procedures.**

Section 86.1008–97 includes text that specifies requirements that differ from those specified in §§ 86.1008–90 and 86.1008–96. Where a paragraph in § 86.1008–90 or § 86.1008–96 is identical and applicable to § 86.1008–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1008–90,” or “[Reserved]. For guidance see § 86.1008–96.”

(a)(1) [Reserved]. For guidance see § 86.1008–96.

(2) For light-duty trucks, the prescribed test procedures are the Federal Test Procedure, as described in subpart B and/or subpart R of this part, whichever is applicable, the idle CO test procedure as described in subpart P of this part, the cold temperature CO test procedure as described in subpart C of this part, and the Certification Short Test procedure as described in subpart O of this part. For purposes of Selective Enforcement Audit testing, the manufacturer shall not be required to perform any of the test procedures in subpart B of this part relating to evaporative emission testing, except as specified in paragraph (a)(3) of this section. The Administrator may select and prescribe the sequence of any Certification Short Tests. Further, the Administrator may, on the basis of a written application by a manufacturer, approve optional test procedures other than those in subparts B, C, P, and O of this part for any motor vehicle which is not susceptible to satisfactory testing using the procedures in subparts B, C, P, and O of this part.

(3) When testing light-duty trucks the following exceptions to the test procedures in subpart B and/or subpart R of this part are applicable:

(i) For mileage accumulation, the manufacturer may use test fuel meeting the specifications for mileage and service accumulation fuels of § 86.113–94 or, for vehicles certified to the National LEV standards, the specifications of § 86.1771–97.

Otherwise, the manufacturer may use fuels other than those specified in this section only with the advance approval of the Administrator.

(ii) [Reserved]. For guidance see § 86.1008–90.

(iii) The manufacturer may perform additional preconditioning on Selective

Enforcement Audit test vehicles other than the preconditioning specified in § 86.132–96, or § 86.1773–97 for vehicles certified to the National LEV standards, only if the additional preconditioning had been performed on certification test vehicles of the same configuration.

(a)(3)(iv) through (a)(3)(vii) [Reserved]. For guidance see § 86.1008–90.

(a)(3)(viii) The manufacturer need not comply with § 86.142–90 or § 86.1775–97, since the records required therein are provided under other provisions of this subpart.

(a)(3)(ix) [Reserved]. For guidance see § 86.1008–90.

(a)(4) [Reserved]. For guidance see § 86.1008–96.

(5) [Reserved]. For guidance see § 86.1008–90.

(6) [Reserved]. For guidance see § 86.1008–96.

(b) through (i) [Reserved]. For guidance see § 86.1008–90.

26. Section 86.1008–2001 is proposed to be amended by revising paragraphs (a)(2), (a)(3) introductory text, (a)(3)(i), (a)(3)(iii), and (a)(3)(viii) to read as follows:

**§ 86.1008–2001 Test procedures.**

(a) \* \* \*

(2) For light-duty trucks, the prescribed test procedures are the Federal Test Procedure as described in subpart B and/or subpart R of this part, whichever is applicable, the idle CO test procedure as described in subpart P of this part, the cold temperature CO test procedure as described in subpart C of this part, and the Certification Short Test procedure as described in subpart O of this part.

(3) When testing light-duty trucks, the following exceptions to the test procedures in subpart B and/or subpart R of this part are applicable to Selective Enforcement Audit testing:

(i) For mileage accumulation, the manufacturer may use test fuel meeting the specifications for mileage and service accumulation fuels of § 86.113–94 or, for vehicles certified to the National LEV standards, the specifications of § 86.1771–97.

Otherwise, the manufacturer may use fuels other than those specified in this section only with the advance approval of the Administrator.

\* \* \* \* \*

(iii) The manufacturer may perform additional preconditioning on SEA test vehicles other than the preconditioning specified in § 86.132–96, or § 86.1773–97 for vehicles certified to the National LEV standards, only if the additional preconditioning was performed on

certification test vehicles of the same configuration.

\* \* \* \* \*

(viii) The manufacturer need not comply with § 86.142–90, § 86.155–98, or § 86.1775–97 since the records required therein are provided under other provisions of this subpart K.

\* \* \* \* \*

27. Section 86.1009–97 is proposed to be added to subpart K to read as follows:

**§ 86.1009–97 Calculation and reporting of test results.**

Section 86.1009–97 includes text that specifies requirements that differ from those specified in §§ 86.1009–84 and 86.1009–96. Where a paragraph in § 86.1009–84 or § 86.1009–96 is identical and applicable to § 86.1009–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1009–84,” or “[Reserved]. For guidance see § 86.1009–96.”

(a) and (b) [Reserved]. For guidance see § 86.1009–96.

(c) *Final deteriorated test results.* (1) The final deteriorated test results for each heavy-duty engine or light-duty truck tested according to subpart B, C, D, I, N, P, or R of this part are calculated by first multiplying or adding, as appropriate, the final test results by or to the appropriate deterioration factor derived from the certification process for the engine family control system combination and model year to which the selected configuration belongs, and then by multiplying by the appropriate reactivity adjustment factor, if applicable. If the multiplicative deterioration factor as computed during the certification process is less than one, that deterioration factor will be one. If the additive deterioration factor as computed during the certification process is less than zero, that deterioration factor will be zero.

(c)(2) [Reserved].

(c)(3) through (c)(4) [Reserved]. For guidance see § 86.1009–96.

(d) [Reserved]. For guidance see § 86.1009–84.

28. Section 86.1009–2001 is proposed to be amended by revising paragraph (c)(1) to read as follows:

**§ 86.1009–2001 Calculation and reporting of test results.**

\* \* \* \* \*

(c) *Final deteriorated test results.* (1) The final deteriorated test results for each light-duty truck, heavy-duty engine, or heavy-duty vehicle tested according to subpart B, C, D, I, M, N, P, or R of this part are calculated by first multiplying or adding, as appropriate, the final test results by or to the

appropriate deterioration factor derived from the certification process for the engine or evaporative/refueling family and model year to which the selected configuration belongs, and then by multiplying by the appropriate reactivity adjustment factor, if applicable. For the purpose of paragraph (c) of this section, if a multiplicative deterioration factor as computed during the certification process is less than one, that deterioration factor will be one. If an additive deterioration factor as computed during the certification process is less than zero, that deterioration factor will be zero.

\* \* \* \* \*

29. Section 86.1012–97 is proposed to be added to subpart K to read as follows:

**§ 86.1012–97 Suspension and revocation of certificates of conformity.**

Section 86.1012–97 includes text that specifies requirements that differ from those specified in § 86.1012–84. Where a paragraph in § 86.1012–84 is identical and applicable to § 86.1012–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1012–84.”

(a) The certificate of conformity is immediately suspended with respect to any engine or vehicle failing pursuant to § 86.1010–96(b) effective from the time that testing of that engine or vehicle is completed.

(b) (1) *Selective Enforcement Audits.* The Administrator may suspend the certificate of conformity for a configuration that does not pass a Selective Enforcement Audit pursuant to § 86.1010–96(c) based on the first test, or all tests, conducted on each engine or vehicle. This suspension will not occur before ten days after failure to pass the audit.

(2) *California Assembly-Line Quality Audit Testing.* The Administrator may suspend the certificate of conformity for a 50-state engine family or configuration that the Executive Officer has determined to be in non-compliance with one or more applicable pollutants based on the “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles”, if the results of vehicle testing conducted by the manufacturer do not meet the acceptable quality level criteria pursuant to § 86.1010–96. The “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” are incorporated by reference. See § 86.1. A vehicle that is tested by the manufacturer and determined to be

a failing vehicle pursuant to California Assembly-Line Quality Audit Test Procedures will be treated as a failed vehicle described in § 86.1010–96(b), unless the manufacturer can show that the vehicle would not be considered a failed vehicle using the test procedures specified in § 86.1008. This suspension will not occur before ten days after the manufacturer receives written notification that the Administrator has determined the 50-state engine family or configuration exceeds one or more applicable federal standards.

(c) (1) *Selective Enforcement Audits.* If the results of engine or vehicle testing pursuant to the requirements of this subpart indicate that engines or vehicles of a particular configuration produced at more than one plant do not conform to the regulations with respect to which the certificate of conformity was issued, the Administrator may suspend the certificate of conformity with respect to that configuration for engines or vehicles manufactured by the manufacturer in other plants of the manufacturer.

(2) *California Assembly-Line Quality Audit Testing.* If the Administrator determines that the results of vehicle testing pursuant to the “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” indicate the vehicles of a particular 50-state engine family or configuration produced at more than one plant do not conform to applicable regulations with respect to which a certificate of conformity was issued, the Administrator may suspend, pursuant to paragraph (b)(2) of this section, the certificate of conformity with respect to that engine family or configuration for vehicles manufactured by the manufacturer in other plants of the manufacturer. The “California Assembly-Line Quality Audit Test Procedures for 1983 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” are incorporated by reference. See § 86.1.

(d) The Administrator will notify the manufacturer in writing of any suspension or revocation of a certificate of conformity in whole or in part: Except, that the certificate is immediately suspended with respect to any failed engines or vehicles as provided for in paragraph (a) of this section.

(e) (1) *Selective Enforcement Audits.* The Administrator may revoke a certificate of conformity for a configuration when the certificate has been suspended pursuant to paragraph (b)(1) or (c)(1) of this section if the

proposed remedy for the nonconformity, as reported by the manufacturer to the Administrator is one requiring a design change(s) to the engine and/or emission control system as described in the Application for Certification of the affected configuration.

(2) *California Assembly-Line Quality Audit Testing.* The Administrator may revoke a certificate of conformity for an engine family or configuration when the certificate has been suspended pursuant to paragraph (b)(2) or (c)(2) of this section if the proposed remedy for the nonconformity, as reported by the manufacturer to the Executive Officer and/or the Administrator, is one requiring a design change(s) to the engine and/or emission control system as described in the Application for Certification of the affected engine family or configuration.

(f) Once a certificate has been suspended for a failed engine or vehicle as provided for in paragraph (a) of this section, the manufacturer must take the following actions:

(1) Before the certificate is reinstated for that failed engine or vehicle—

(i) Remedy the nonconformity; and  
(ii) Demonstrate that the engine or vehicle’s final deteriorated test results conform to the applicable emission standards or family particulate emission limits, as defined in this part 86 by retesting the engine or vehicle in accordance with the requirements of this subpart.

(2) Submit a written report to the Administrator within thirty days after successful completion of testing on the failed engine or vehicle, which contains a description of the remedy and test results for the engine or vehicle in addition to other information that may be required by this subpart.

(g) Once a certificate has been suspended pursuant to paragraph (b) or (c) of this section, the manufacturer must take the following actions before the Administrator will consider reinstating such certificate:

(1) Submit a written report to the Administrator which identifies the reason for the noncompliance of the vehicles, describes the proposed remedy, including a description of any proposed quality control and/or quality assurance measures to be taken by the manufacturer to prevent the future occurrence of the problem, and states the date on which the remedies will be implemented.

(2) Demonstrate that the engine family or configuration for which the certificate of conformity has been suspended does in fact comply with the requirements of this subpart by testing engines or vehicles selected from normal

production runs of that engine family or configuration at the plant(s) or the facilities specified by the Administrator, in accordance with:

(i) The conditions specified in the initial test order pursuant to § 86.1003–97 for a configuration suspended pursuant to paragraph (b)(1) or (c)(1) of this section; or

(ii) The conditions specified in a test order pursuant to § 86.1003–97 for an engine family or configuration suspended pursuant to paragraph (b)(2) or (c)(2) of this section.

(3) If the Administrator has not revoked the certificate pursuant to paragraph (e) of this section and if the manufacturer elects to continue testing individual engines or vehicles after suspension of a certificate, the certificate is reinstated for any engine or vehicle actually determined to have its final deteriorated test results in conformance with the applicable standards through testing in accordance with the applicable test procedures.

(4) In cases where the Administrator has suspended a certificate of conformity for a 50-state engine family or configuration pursuant to paragraph (b)(2) or (c)(2) of this section, manufacturers may request in writing that the Administrator reinstate the certificate of an engine family or configuration when, in lieu of the actions described in paragraphs (g)(1) and (2) of this section, the manufacturer has complied with section 2108, section 2109, and/or section 2110 of Title 13, Division 3, of the California Code of Regulations, provided an Executive Order is in place for the engine family or configuration. Title 13, Division 3, of the California Code of Regulations is incorporated by reference. See § 86.1.

(h) Once a certificate for a failed engine family or configuration has been revoked under paragraph (e)(1) or (2) of this section and the manufacturer desires to introduce into commerce a modified version of that engine family or configuration the following actions will be taken before the Administrator may issue a certificate for the new engine family or configuration:

(1) If the Administrator determines that the proposed change(s) in engine or vehicle design may have an effect on emission performance deterioration and/or fuel economy, he/she shall notify the manufacturer within 5 working days after receipt of the report in paragraph (g)(1) of this section or after receipt of information pursuant to paragraph (g)(4) of this section whether subsequent testing under this subpart will be sufficient to evaluate the proposed change(s) or whether additional testing will be required.

(2) After implementing the change(s) intended to remedy the nonconformity, the manufacturer shall demonstrate:

(i) If the certificate was revoked pursuant to paragraph (e)(1) of this section, that the modified configuration does in fact conform with the requirements of this subpart by testing engines or vehicles selected from normal production runs of that modified configuration in accordance with the conditions specified in the initial test order pursuant to § 86.1003–97. The Administrator shall consider this testing to satisfy the testing requirements of § 86.079–32 or § 86.079–33 if the Administrator had so notified the manufacturer. If the subsequent testing results in a pass decision pursuant to the criteria in § 86.1010–96(c), the Administrator shall reissue or amend the certificate, if necessary, to include that configuration: *Provided*, that the manufacturer has satisfied the testing requirements specified in paragraph (h)(1) of this section. If the subsequent audit results in a fail decision pursuant to the criteria in § 86.1010–96(c), the revocation remains in effect. Any design change approvals under this subpart are limited to the modification of the configuration specified by the test order.

(ii) If the certificate was revoked pursuant to paragraph (e)(2) of this section, that the modified engine family or configuration does in fact conform with the requirements of this subpart by testing vehicles selected from normal production runs of that modified engine family or configuration in accordance with the conditions specified in a test order pursuant to § 86.1003–97. The Administrator shall consider this testing to satisfy the testing requirements of § 86.079–32 or § 86.079–33 if the Administrator had so notified the manufacturer. If the subsequent testing results in a pass decision pursuant to § 86.1010–96(c), the Administrator shall reissue or amend the certificate as necessary: *Provided*, that the manufacturer has satisfied the testing requirements specified in paragraph (h)(1) of this section. If the subsequent testing results in a fail decision pursuant to § 86.1010–96(c), the revocation remains in effect. Any design change approvals under this subpart are limited to the modification of the engine family or configuration specified by the test order.

(3) In cases where the Administrator has revoked a certificate of conformity for a 50-state engine family or configuration pursuant to paragraph (e)(2) of this section, manufacturers may request in writing that the Administrator reissue the certificate for an engine family or configuration when,

in lieu of the actions described in (h) (1) and (2) of this section, the manufacturer has complied with section 2108, section 2109, and/or section 2110 of Title 13, Division 3, of the California Code of Regulations, provided an Executive Order is in place for the engine family or configuration. Title 13, Division 3, of the California Code of Regulations is incorporated by reference. See § 86.1.

(i) through (k) [Reserved].

(l) and (m) [Reserved]. For guidance see § 86.1012–84.

(n) To permit a manufacturer to avoid storing non-test engines or vehicles when conducting testing of an engine family or configuration subsequent to suspension or revocation of the certificate of conformity for that engine family or configuration pursuant to paragraph (b), (c), or (e) of this section, the manufacturer may request that the Administrator conditionally reinstate the certificate for that engine family or configuration. The Administrator may reinstate the certificate subject to the condition that the manufacturer consents to recall all engines or vehicles of that engine family or configuration produced from the time the certificate is conditionally reinstated if the engine family or configuration fails the subsequent testing and to remedy any nonconformity at no expense to the owner.

30. Section 86.1014–97 is proposed to be added to subpart K to read as follows:

**§ 86.1014–97 Hearings on suspension, revocation, and voiding of certificates of conformity.**

Section 86.1014–97 includes text that specifies requirements that differ from those specified in § 86.1014–84. Where a paragraph in § 86.1014–84 is identical and applicable to § 86.1014–97, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1014–84.”

(a) through (c)(2)(ii) introductory text [Reserved]. For guidance see § 86.1014–84.

(c)(2)(ii)(A) Whether tests have been properly conducted, specifically, whether the tests were conducted in accordance with applicable regulations and whether test equipment was properly calibrated and functioning; and

(c)(2)(ii)(B) through (aa) [Reserved]. For guidance see § 86.1014–84.

31. A new subpart R consisting of §§ 86.1701–97 through 86.1779–97 is proposed to be added to part 86 to read as follows:

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

Sec.

- 86.1701–97 General applicability.
- 86.1702–97 Definitions.
- 86.1703–97 Abbreviations.
- 86.1704–97 Section numbering; construction.
- 86.1705–97 General provisions; opt-in; opt-out.
- 86.1706–97 through 86.1707–97 [Reserved]
- 86.1708–97 Emission standards for 1997 and later light-duty vehicles.
- 86.1709–97 Emission standards for 1997 and later light-duty trucks.
- 86.1710–97 Fleet average non-methane organic gas exhaust emission requirements for light-duty vehicles and light-duty trucks.
- 86.1711–97 through 86.1712–97 [Reserved]
- 86.1713–97 Light-duty exhaust durability programs.
- 86.1714–97 Small-volume manufacturers certification procedures.
- 86.1715–97 [Reserved]
- 86.1716–97 Prohibition of defeat devices.
- 86.1717–97 Emission control diagnostic system for 1997 and later light-duty vehicles and light-duty trucks.
- 86.1718–97 through 86.1720–97 [Reserved]
- 86.1721–97 Application for certification.
- 86.1722–97 [Reserved]
- 86.1723–97 Required data.
- 86.1724–97 Test vehicles and engines.
- 86.1725–97 Maintenance.
- 86.1726–97 Mileage and service accumulation; emission measurements.
- 86.1727–97 [Reserved]
- 86.1728–97 Compliance with emission standards.
- 86.1729–97 through 86.1733–97 [Reserved]
- 86.1734–97 Alternative procedure for notification of additions and changes.
- 86.1735–97 Labeling.
- 86.1736–97 through 86.1737–97 [Reserved]
- 86.1738–97 Maintenance instructions.
- 86.1739–97 Submission of maintenance instructions.
- 86.1740–97 through 86.1769–97 [Reserved]
- 86.1770–97 Evaporative emission testing.
- 86.1771–97 Fuel specifications.
- 86.1772–97 Test sequence; general requirements.
- 86.1773–97 Vehicle preconditioning.
- 86.1774–97 Exhaust sample analysis.
- 86.1775–97 Records required.
- 86.1776–97 Calculations; exhaust emissions.
- 86.1777–97 Calculations; particulate emissions.
- 86.1778–97 General enforcement provisions.
- 86.1779–97 Prohibited acts.

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

**§ 86.1701–97 General applicability.**

(a) The provisions of this subpart may be adopted by vehicle manufacturers pursuant to the provisions specified in

§ 86.1705–97. The provisions of this subpart are generally applicable to 1997 and later model year light-duty vehicles and light light-duty trucks produced for sale in the Northeast Ozone Transport Region, and 2001 and later model year light-duty vehicles and light light-duty trucks produced for sale in the United States. In cases where a provision applies only to certain vehicles based on model year, vehicle class, motor fuel, engine type, vehicle emission category, intended sales destination, or other distinguishing characteristics, such limited applicability is cited in the appropriate section or paragraph. The provisions of this subpart shall be referred to as the “National Low-Emission Vehicle Program” or “National LEV” or “NLEV.”

(b) All requirements of 40 CFR parts 85 and 86, unless specifically replaced or modified by the provisions of this subpart, shall apply to the National LEV Program.

(c) The requirements of this subpart shall be effective until all covered manufacturers are in the first model year for which EPA promulgates emissions standards under Section 202(i) of the Act (42 U.S.C. 7521(i)) that are at least as stringent as the standards for NMOG, NO<sub>x</sub>, and CO provided in this subpart, as determined by the Administrator, and such standards commence no later than model year 2006, provided such standards are promulgated no later than December 15, 2000; otherwise, the requirements of this subpart are effective through model year 2003.

#### § 86.1702–97 Definitions.

(a) The definitions in subpart A of this part apply to this subpart.

(b) In addition, the following definitions shall apply to this subpart:

*Alcohol fuel* means either methanol or ethanol as those terms are defined in these test procedures.

*All-electric range test* means a test sequence used to determine the range of an electric vehicle or of a hybrid electric vehicle without the use of its auxiliary power unit. The All-Electric Range Test cycle consists of alternating the Highway Fuel Economy Schedule and Urban Dynamometer Driving Schedule.

*Applicable fleet average NMOG value* is the fleet average NMOG value calculated for a particular averaging set, based upon the applicable production for that averaging set and the applicable fleet average NMOG requirement listed in Tables R97–5 and R97–6 of this subpart.

*Applicable production* is the number of vehicles and/or trucks that a manufacturer produces in a given model

year that are subject to the provisions of this subpart, and are included in the same averaging set.

*Averaging sets* are the categories of LDVs and LDTs for which the manufacturer calculates a fleet average NMOG value. The four averaging sets for fleet average NMOG value calculation purposes are:

(1) Class A delivered to a point of first retail sale in the Northeast Ozone Transport Region (OTR);

(2) Class A delivered to a point of first retail sale in the 37 States region;

(3) Class B delivered to a point of first retail sale in the OTR; and

(4) Class B delivered to a point of first retail sale in the 37 States region.

*Battery assisted combustion engine vehicle* means any vehicle which allows power to be delivered to the driven wheels solely by a combustion engine, but which uses a battery pack to store energy which may be derived through remote charging, regenerative braking, and/or a flywheel energy storage system or other means which will be used by an electric motor to assist in vehicle operation.

*Battery pack* means any electrical energy storage device consisting of any number of individual battery modules which is used to propel electric or hybrid electric vehicles.

*Class A* comprises LDVs and LDTs 0–3750 lbs. LVW that are subject to the provisions of this subpart.

*Class B* comprises LDTs 3751–5750 lbs. LVW that are subject to the provisions of this subpart.

*Continually regenerating trap oxidizer system* means a trap oxidizer system that does not utilize an automated regeneration mode during normal driving conditions for cleaning the trap.

*Covered manufacturer* means an original equipment manufacturer (OEM), as defined at § 85.1502(9), that meets the conditions specified under § 86.1705(a).

*Covered vehicle or engine* means a vehicle specified in § 86.1701(a), or an engine in such a vehicle, that is manufactured by a covered manufacturer.

*Credits* means fleet average NMOG credits as calculated from the amount that the manufacturer’s applicable fleet average NMOG value is below the applicable fleet average NMOG requirement, times the applicable production. NMOG credits have units of g/mi.

*Debits* means fleet average NMOG debits as calculated from the amount that the manufacturer’s applicable fleet average NMOG value is above the applicable fleet average NMOG requirement, times the applicable

production. NMOG debits have units of g/mi.

*Dedicated ethanol vehicle* means any ethanol-fueled motor vehicle that is engineered and designed to be operated solely on ethanol.

*Dedicated methanol vehicle* means any methanol-fueled motor vehicle that is engineered and designed to be operated solely on methanol.

*Diesel engine* means any engine powered with diesel fuel, gaseous fuel, ethanol, or methanol for which diesel engine speed/torque characteristics and vehicle applications are retained.

*Dual-fuel vehicle (or Engine)* means any motor vehicle (or motor vehicle engine) engineered and designed to be operated on two different fuels, but not on a mixture of the fuels.

*Electric vehicle* means any vehicle which operates solely by use of a battery or battery pack. This definition also includes vehicles which are powered mainly through the use of an electric battery or battery pack, but which use a flywheel that stores energy produced by the electric motor or through regenerative braking to assist in vehicle operation.

*Element of design* means any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.

*Ethanol* means any fuel for motor vehicles and motor vehicle engines that is composed of either commercially available or chemically pure ethanol (CH<sup>3</sup>CH<sup>2</sup>OH) and gasoline as specified in § 86.1771–97 (Fuel Specifications) of these test procedures. The required fuel blend is based on the type of ethanol-fueled vehicle being certified and the particular aspect of the certification procedure being conducted.

*Ethanol vehicle* means any motor vehicle that is engineered and designed to be operated using ethanol as a fuel.

*Executive Officer* of the California Air Resources Board (ARB), as used in the referenced materials listed in § 86.1, means the Administrator of the Environmental Protection Agency (EPA).

*Flexible-fuel vehicle (or engine)* means any motor vehicle (or motor vehicle engine) engineered and designed to be operated on any mixture of two or more different fuels.

*Fuel-fired heater* means a fuel burning device which creates heat for the purpose of warming the passenger compartment of a vehicle but does not contribute to the propulsion of the vehicle.

*Gaseous fuels* means liquefied petroleum gas, compressed natural gas, or liquefied natural gas fuels for use in motor vehicles.

*Hybrid electric vehicle (HEV)* means any vehicle which is included in the definition of a "series hybrid electric vehicle," a "parallel hybrid electric vehicle," or a "battery assisted combustion engine vehicle."

*Low volume manufacturer* means any vehicle manufacturer with California sales of new passenger cars, light-duty trucks, and medium-duty vehicles less than or equal to 3000 units and nationwide sales of passenger cars and light-duty trucks less than or equal to 40,000 units per model year based on the average number of vehicles sold by the manufacturer for each of the three most recent model years. For manufacturers certifying for the first time, model-year sales shall be based on projected sales.

*Low-emission vehicle (LEV)* means any vehicle certified to the low-emission vehicle standards specified in this subpart.

*Methane reactivity adjustment factor* means a factor applied to the mass of methane emissions from natural gas fueled vehicles for the purpose of determining the gasoline equivalent ozone-forming potential of the methane emissions.

*Methanol* means any fuel for motor vehicles and motor vehicle engines that is composed of either commercially available or chemically pure methanol (CH<sub>3</sub>OH) and gasoline as specified in § 86.1771-97 (Fuel Specifications) of these procedures. The required fuel blend is based on the type of methanol-fueled vehicle being certified and the particular aspect of the certification procedure being conducted.

*Methanol vehicle* means any motor vehicle that is engineered and designed to be operated using methanol as a fuel.

*Natural gas* means either compressed natural gas or liquefied natural gas.

*Natural gas vehicle* means any motor vehicle that is engineered and designed to be operated using either compressed natural gas or liquefied natural gas.

*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." This procedure has been incorporated by reference. See § 86.1.

*Non-regeneration emission test* means a complete emission test which does not include a regeneration.

*Northeast Ozone Transport Region (OTR)* means the transport region for ozone established by law under the

Clean Air Act section 184(a) and comprised of the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont, the District of Columbia, and that part of Virginia within (as of November 15, 1990) the Consolidated Metropolitan Statistical Area which includes the District of Columbia.

*Organic material non-methane hydrocarbon equivalent (or OMNMHCE)* for methanol-fueled vehicles means the sum of the carbon mass contribution of non-oxygenated hydrocarbons (excluding methane), methanol, and formaldehyde as contained in a gas sample, expressed as gasoline-fueled hydrocarbons. For ethanol-fueled vehicles, organic material non-methane hydrocarbon equivalent (OMNMHCE) means the sum of carbon mass contribution of non-oxygenated hydrocarbons (excluding methane), methanol, ethanol, formaldehyde and acetaldehyde as contained in a gas sample, expressed as gasoline-fueled hydrocarbons.

*Ozone deterioration factor* means a factor applied to the mass of NMOG emissions from TLEVs, LEVs, or ULEVs which accounts for changes in the ozone-forming potential of the NMOG emissions from a vehicle as it accumulates mileage.

*Parallel hybrid electric vehicle* means any vehicle which allows power to be delivered to the driven wheels by either a combustion engine and/or by a battery powered electric motor.

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

*Point of first retail sale* is the location where the completed LDV or LDT is purchased, also known as the final product purchase location. The point of first retail sale may be a retail customer, dealer or secondary manufacturer. In cases where the end user purchases the completed vehicle directly from the manufacturer, the end user is the point of first retail sale.

*Reactivity adjustment factor* means a fraction applied to the mass of NMOG emission from a vehicle powered by a fuel other than conventional gasoline for the purpose of determining a gasoline-equivalent NMOG emission value. The reactivity adjustment factor is defined as the ozone-forming potential of the exhaust from a vehicle powered by a fuel other than conventional gasoline divided by the ozone-forming potential

of conventional gasoline vehicle exhaust.

*Regeneration* means the process of oxidizing accumulated particulate matter. It may occur continually or periodically.

*Regeneration emission test* means a complete emission test which includes a regeneration.

*Regeneration interval* means the interval from the start of a regeneration to the start of the next regeneration.

*Series hybrid electric vehicle* means any vehicle which allows power to be delivered to the driven wheels solely by a battery powered electric motor, but which also incorporates the use of a combustion engine to provide power to the battery and/or electric motor.

*37 States* is the trading region comprised of the United States excluding California and the Ozone Transport Region.

*Transitional low-emission vehicle (TLEV)* means any vehicle certified to the transitional low-emission vehicle standards specified in this subpart.

*Trap oxidizer system* means an emission control system which consists of a trap to collect particulate matter and a mechanism to oxidize the accumulated particulate.

*Type A hybrid electric vehicle* means an HEV which achieves a minimum range of 60 miles over the All-Electric Range Test as defined in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" which is incorporated by reference. See § 86.1.

*Type B hybrid electric vehicle* means an HEV which achieves a range of 40-59 miles over the All-Electric Range Test as defined in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" which is incorporated by reference. See § 86.1.

*Type C hybrid electric vehicle* means an HEV which achieves a range of 0-39 miles over the all-Electric Range test and all other HEVs excluding "Type A" and "Type B" HEVs as defined in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" which is incorporated by reference. See § 86.1.

*Ultra-low-emission vehicle (ULEV)* means any vehicle certified to the ultra-low emission vehicle standards specified in this subpart.

*Zero-emission vehicle (ZEV)* means any vehicle which is certified to produce zero emissions of any criteria pollutants under any and all possible operational modes and conditions. Incorporation of a fuel fired heater shall not preclude a vehicle from being certified as a ZEV provided the fuel fired heater cannot be operated at ambient temperatures above 40 degrees Fahrenheit and the heater is demonstrated to have zero evaporative emissions under any and all possible operational modes and conditions.

**§ 86.1703-97 Abbreviations.**

(a) The abbreviations in subpart A of this part apply to this subpart. In addition, the following abbreviations shall apply to this subpart:

(b) The abbreviations in the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles," which is incorporated by reference (see § 86.1) also apply to this subpart. In addition, the following abbreviations shall apply to this subpart:

HEV—hybrid electric vehicle  
LEV—low-emission vehicle  
NMOG—non-methane organic gases  
OTR—Northeast Ozone Transport Region  
TLEV—transitional low-emission vehicle  
ULEV—ultra low-emission vehicle  
ZEV—zero emission vehicle

**§ 86.1704-97 Section numbering; construction.**

(a) The model year of initial applicability is indicated by the last two digits of the six-digit group of the section number. A section remains in effect for subsequent model years until it is superseded.

(b) Where a section still in effect references a section that has been superseded, the reference shall be interpreted to mean the superseding section.

(c) Where a California regulation is incorporated by reference in this subpart, and such regulation refers to a provision in the Code of Federal Regulations that has been superseded by a subsequent CFR provision, the superseded CFR section is considered the actual reference and will apply to the specific model year cited. Such references from California provisions will not be interpreted to mean the superseding CFR section.

**§ 86.1705-97 General provisions; opt-in; opt-out.**

(a) Covered manufacturers must comply with the provisions in this subpart, and in addition, must comply with the otherwise applicable

requirements of 40 CFR parts 85 and 86. A manufacturer shall be a covered manufacturer if:

(1) The manufacturer has opted into the program pursuant to paragraph (d) of this section;

(2) Where a manufacturer included the condition on opt-in provided for in paragraph (d) of this section, that condition has not been violated; and

(3) The manufacturer has not opted out or the manufacturer has opted out but that opt-out has not become effective under paragraphs (e) and (f) of this section.

(b) Compliance with the tailpipe emissions standards and other requirements specified in paragraph (h) of this section shall be deemed to be compliance with the corresponding tailpipe emissions standards and other requirements specified in §§ 86.096-8 and 86.097-9.

(c) Covered manufacturers must comply with the standards and requirements specified in this subpart beginning in model year 1997, except a covered manufacturer that opted into the program after model year 1996 must comply with the standards and requirements of this subpart beginning in the first model year after the model year in which that manufacturer opted in. Covered manufacturers must comply with the provisions of this subpart as long as the regulations are effective, as specified in § 86.1701-97(c).

(d) To opt into the National LEV program, a motor vehicle manufacturer must submit a written statement to the Administrator signed by a person or entity within the corporation or business with authority to bind the corporation or business to its election. The statement must unambiguously and unconditionally (apart from the permissible condition specified below) indicate the manufacturer's intent to opt into the program and be subject to the provisions in this subpart, and include the following language: "[xx company,] its subsidiaries, successors and assigns hereby opts into the voluntary National LEV program, as defined in 40 CFR part 86 subpart R, and agrees to be legally bound by all of the standards, requirements and other provisions of the National LEV program for the duration of the program, as specified in subpart R. [xx company] further commits not to challenge EPA's authority to establish or enforce the National LEV program, and commits not to seek to certify any vehicle except in compliance with the regulations in subpart R." The statement may indicate that the manufacturer opts into the program subject to the condition that the Administrator find under 40 CFR

51.121(b)(2) that the program is in effect with the following language: "This opt-in is subject only to the condition that the Administrator make a finding on or before [insert date 60 days from date of signature] pursuant to 40 CFR 51.121(b)(2) that the National LEV program is in effect for purposes of substitution for OTC LEV." A manufacturer shall be considered to have opted in upon the Administrator's receipt of the opt-in notification.

(e) A covered manufacturer may opt out of the National LEV program only if one of the specified conditions allowing opt-out occurs. A manufacturer must exercise the opt-out option within sixty days of the occurrence allowing opt-out, or the opt-out option expires. The opt-out shall become effective upon the times specified below, unless the Administrator finds within sixty days of receipt of the opt-out letter that the condition submitted by the manufacturer has not actually occurred. The following are the conditions allowing opt-out:

(1) EPA makes a revision not specified in paragraph (h)(2) of this section to a standard or requirement listed in paragraph (h)(1) of this section to which the covered manufacturer objected. Only a covered manufacturer that objects to a revision may opt out if that revision is adopted. An objection shall be valid for this purpose only if it was filed during the public comment period on the proposed revision and the objection specifies that it is being made to allow opt-out under paragraph (e) of this section. An opt-out based on this provision shall become effective starting the first model year to which EPA's modified regulations apply.

(2) [Reserved for provisions relating to undetermined state commitments regarding section 177 programs.]

(f) To opt out of the National LEV program, a covered manufacturer must notify the Administrator as provided in paragraph (d) of this section, except that the statement shall specify the condition under paragraph (e) of this section allowing opt-out and shall indicate the manufacturer's intent to opt out of the program and no longer to be subject to the provisions in this subpart. The letter shall include the following language: "[xx company,] its subsidiaries, successors and assigns hereby opt out of the voluntary National LEV program, as defined in 40 CFR part 86 subpart R."

(g) A manufacturer that has opted out and is no longer a covered manufacturer under this subpart shall be subject to all provisions that would apply to a manufacturer that had not opted in, including all applicable standards and requirements promulgated under Title II

of the Act (42 U.S.C. 7521 et. seq.) and any state standards adopted pursuant to section 177 of the Act (42 U.S.C. 7507).

(h) (1) The following are the emissions standards and requirements that, if revised, may provide covered manufacturers the opportunity to opt out pursuant to paragraph (e)(1) of this section:

(i) The tailpipe emissions standards for NMOG, NO<sub>x</sub>, CO, HCHO, and PM specified in sections 86.1708–97 and 86.1709–97;

(ii) The compliance test procedure (Federal Test Procedure) as specified in § 86.130–96, § 86.115–78, § 86.108–79, and Appendix I to part 86;

(iii) The compliance test fuel, as specified in § 86.1771–97;

(iv) Fleet average NMOG values specified in § 86.1710–97;

(v) The on-board diagnostic system requirements specified in § 86.1717–97;

(vi) The averaging, banking and trading provisions specified in § 86.1710–97;

(vii) The low volume manufacturer provisions specified in § 86.1714–97;

(viii) The evaporative emissions standards and provisions for light-duty vehicles specified in § 86.096–8(b), and the evaporative emissions standards and provisions for light-duty trucks specified in § 86.097–9(b);

(ix) The light-duty vehicle refueling emissions standards and provisions specified in § 86.098–8(d) and the light-duty truck refueling emissions standards and provisions specified in § 86.001–9(d);

(x) The cold temperature carbon monoxide standards and provisions for light-duty vehicles specified in

§ 86.096–8(k), and the cold temperature carbon monoxide standards and provisions for light-duty trucks specified in § 86.097–9(k), except that changes to these provisions effective after model year 2000 shall not provide an opportunity for a covered manufacturer to opt out.

(xi) The Supplemental Federal Test Procedure emission standards and provisions for light-duty vehicles specified in § 86.098–8(e), and the Supplemental Federal Test Procedure emission standards and provisions for light-duty trucks specified in § 86.098–9(d). [The revisions to §§ 86.098–8(e) and 86.098–9(d) have not been finalized; references are to proposed regulations in 60 FR 7404, February 7, 1995.]

(2) The following types of revisions to the standards and requirements in paragraph (h)(1) of this section do not provide covered manufacturers the right to opt out of the National LEV program:

(i) Revisions that do not increase the stringency of the standard or requirement; or

(ii) Revisions that harmonize the standard or requirement with the comparable California standard or requirement for the same model year (even if the harmonization increases the stringency of the standard or requirement).

**§ 86.1706–97 through § 86.1707–97 [Reserved]**

**§ 86.1708–97 Emission standards for 1997 and later light-duty vehicles.**

(a) Light-duty vehicles certified under the provisions of this subpart as TLEVs,

ULEVs, or ZEVs shall comply with the applicable exhaust emission standards in this section. In addition to the exhaust emission standards in this section, light-duty vehicles certified under the provisions of this subpart as TLEVs, LEVs, ULEVs, or ZEVs shall comply with all applicable emission standards in § 86.096–8 (or appropriate sections as they apply to later model years), as provided in paragraphs (a) (1) and (2) of this section.

(1) Emission standards for total hydrocarbon (THC) and particulate matter (PM) in § 86.096–8(a)(1)(i) shall apply to vehicles certified as TLEVs, LEVs, ULEVs, and ZEVs. Additional exhaust emission standards in § 86.096–8(a)(1)(i) shall not apply to vehicles certified as TLEVs, LEVs, ULEVs, and ZEVs.

(2) Compliance with emission standards at high altitude conditions shall be demonstrated using the applicable emission standards and procedures in § 86.096–8.

(b)(1) *Standards.* (i) Exhaust emissions from 1997 and later model year light-duty vehicles classified as TLEVs, LEVs, ULEVs, and ZEVs shall not exceed the standards in Tables R97–1 and R97–2 in rows designated with the applicable vehicle emission category. These standards shall apply equally to certification and in-use vehicles, except as provided in paragraph (c) of this section:

**TABLE R97–1.—INTERMEDIATE USEFUL LIFE STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES CLASSIFIED AS TLEVs, LEVs, AND ULEVs**

Vehicle emission category	NMOG	CO	NOX	HCHO
TLEV .....	0.125	3.4	0.4	0.015
LEV .....	.075	3.4	.2	.015
ULEV .....	.040	1.7	.2	.008

**TABLE R97–2—FULL USEFUL LIFE STANDARDS (G/MI) FOR LIGHT-DUTY VEHICLES CLASSIFIED AS TLEVs, LEVs, AND ULEVs**

Vehicle emission category	NMOG	CO	NOX	HCHO	PM
TLEV .....	0.156	4.2	0.6	0.018	0.08
LEV .....	.090	4.2	.3	.018	.08
ULEV .....	.055	2.1	.3	.011	.04

(ii) The particulate matter (PM) standards in paragraph (b)(1)(i) of this section are applicable to diesel light-duty vehicles only. All other light-duty vehicles must comply with the applicable PM standards in § 86.096–8.

(iii) Flexible-fuel and dual-fuel light-duty vehicles shall be certified to exhaust emission standards for NMOG established for the operation of the vehicle on an available fuel other than

gasoline, and for the operation of the vehicle on gasoline.

(A) The applicable NMOG emission standards for flexible-fuel and dual-fuel light-duty vehicles when certifying the vehicle for operation on fuels other than

gasoline shall be the NMOG standards in paragraph (b)(1)(i) of this section.

(B) The applicable NMOG emission standards for flexible-fuel and dual-fuel light-duty vehicles when certifying the vehicle for operation on gasoline shall be the NMOG standards in the rows designated with the applicable vehicle emission category in tables R97-3 and R97-4:

TABLE R97-3.—INTERMEDIATE USEFUL LIFE NMOG STANDARDS (G/MI) FOR FLEXIBLE-FUEL AND DUAL-FUEL LIGHT-DUTY VEHICLES CLASSIFIED AS TLEVS, LEVS, AND ULEVS

Vehicle emission category	NMOG
TLEV .....	0.25
LEV .....	0.125
ULEV .....	0.075

TABLE R97-4.—FULL USEFUL LIFE NMOG STANDARDS (G/MI) FOR FLEXIBLE-FUEL AND DUAL-FUEL LIGHT-DUTY VEHICLES CLASSIFIED AS TLEVS, LEVS, AND ULEVS

Vehicle emission category	NMOG
TLEV .....	0.31
LEV .....	0.156
ULEV .....	0.090

(iv) The maximum projected NO<sub>x</sub> emissions measured on the Highway Fuel Economy Test in subpart B of this part shall not be greater than 1.33 times the applicable light-duty vehicle standards shown in Tables R97-1 and R97-2. Both the projected emissions and the Highway Fuel Economy Test standard shall be rounded to the nearest 0.1 g/mi in accordance with the Rounding-Off Method specified in ASTM E29-90, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, before being compared. These procedures have been incorporated by reference. See § 86.1.

(v) Deterioration factors for hybrid electric vehicles shall be based on the emissions and mileage accumulation of the auxiliary power unit. For certification purposes only, Type A hybrid electric vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors), and shall not be required to demonstrate compliance with 100,000 mile emission standards. For certification purposes only, Type B hybrid electric vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors) and 100,000 mile emission standards (using 75,000

mile deterioration factors). For certification purposes only, Type C hybrid electric vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors) and 100,000 mile emission standards (using 100,000 mile deterioration factors).

(2) [Reserved].

(c) *Intermediate in-use emission standards.* (1) 1997 and 1998 model year light-duty vehicles certified as LEVs or ULEVs shall meet the applicable intermediate useful life in-use standards in paragraphs (c)(2) or (c)(3) of this section, according to the following provisions:

(i) In-use compliance with standards beyond the intermediate useful life shall be waived for LEVs and ULEVs through the 1998 model year.

(ii) After the 1998 model year, the applicable in-use standards shall be the intermediate and full useful life standards in paragraph (b) of this section.

(2) Light-duty vehicles, including flexible-fuel and dual-fuel light-duty vehicles when operated on an available fuel other than gasoline, shall meet all intermediate useful life standards for the applicable vehicle emission category in Table R97-5:

TABLE R97-5.—INTERMEDIATE USEFUL LIFE STANDARDS FOR LIGHT-DUTY VEHICLES

Vehicle emission category	NMOG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	HCHO (g/mi)
LEV .....	0.100	3.4	0.3	0.015
ULEV .....	0.058	2.6	0.3	0.012

(3) Flexible-fuel and dual-fuel light-duty vehicles when operated on

gasoline shall meet all intermediate useful life standards for the applicable

vehicle emission category in Table R97-6:

TABLE R97-6.—INTERMEDIATE USEFUL LIFE STANDARDS FOR FLEXIBLE-FUEL AND DUAL-FUEL LIGHT-DUTY VEHICLES WHEN OPERATED ON GASOLINE

Vehicle emission category	NMOG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	HCHO (g/mi)
LEV .....	0.188	3.4	0.3	0.015
ULEV .....	0.100	2.6	0.3	0.012

(d) *NMOG measurement.* NMOG emissions shall be measured in accordance with the "California Non-Methane Organic Gas Test Procedures." These procedures have been incorporated by reference. See § 86.1. NMOG emissions shall be compared to the applicable NMOG emissions certification or in-use standard according to the following calculation procedures:

(1) For TLEVs, LEVs, and ULEVs designed to operate exclusively on any fuel other than conventional gasoline, and for flexible-fuel and dual-fuel TLEVs, LEVs, and ULEVs when operated on a fuel other than gasoline, manufacturers shall multiply NMOG exhaust emission levels by the applicable reactivity adjustment factor set forth in section 13 of the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent

Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" (incorporated by reference, see § 86.1), or established by the Executive Officer pursuant to Appendix VIII of the document referenced above and approved by the Administrator. The product of the NMOG exhaust emission levels and the reactivity adjustment factor shall be compared to the applicable certification or in-use exhaust NMOG mass emission

standards established for the particular vehicle emission category to determine compliance.

(2) In addition to multiplying the exhaust NMOG mass emission levels by the applicable reactivity adjustment factor, TLEV, LEV, or ULEV natural gas vehicles shall multiply the exhaust methane mass emission level by the applicable methane reactivity adjustment factor in section 13 of the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" (incorporated by reference, see § 86.1), or established by the Executive Officer pursuant to Appendix VIII of the document referenced above and approved by the Administrator. The reactivity-adjusted NMOG value shall be added to the reactivity-adjusted methane value and then the sum shall be compared to the applicable certification or in-use exhaust NMOG mass emission standards established for

the particular vehicle emission category to determine compliance.

(3) The exhaust NMOG mass emission levels for fuel-flexible and dual-fuel vehicles when operating on gasoline, or for vehicles designed to operate exclusively on gasoline, shall not be multiplied by a reactivity adjustment factor.

**§ 86.1709-97 Emission standards for 1997 and later light light-duty trucks.**

(a) Light light-duty trucks certified under the provisions of this subpart as TLEVs, LEVs, ULEVs, or ZEVs shall comply with the applicable exhaust emission standards in this section. In addition to the exhaust emission standards in this section, light light-duty trucks certified under the provisions of this subpart as TLEVs, LEVs, ULEVs, or ZEVs shall comply with all applicable emission standards in § 86.097-9 (or appropriate sections as they apply to later model years), as provided in paragraphs (a)(1) and (2) of this section.

(1) Emission standards for total hydrocarbon (THC) and particulate matter (PM) in § 86.097-9(a)(1)(i) shall apply to light light-duty trucks certified as TLEVs, LEVs, ULEVs, and ZEVs. Additional exhaust emission standards in § 86.097-9 (a)(1)(i) shall not apply to light light-duty trucks certified as TLEVs, LEVs, ULEVs, and ZEVs.

(2) Compliance with emission standards at high altitude conditions shall be demonstrated using the applicable emission standards and procedures in § 86.097-9.

(b)(1) *Standards.* (i) Exhaust emissions from 1997 and later model year light light-duty trucks classified as TLEVs, LEVs, ULEVs, and ZEVs shall not exceed the standards in Tables R97-7 and R97-8 in rows designated with the applicable vehicle emission category and loaded vehicle weight. These standards shall apply equally to certification and in-use vehicles, except as provided in paragraph (c) of this section:

**TABLE R97-7.—INTERMEDIATE USEFUL LIFE STANDARDS (G/MI) FOR LIGHT LIGHT-DUTY TRUCKS CLASSIFIED AS TLEVs, LEVs, AND ULEVs**

Loaded vehicle weight	Vehicle emission category	NMOG	CO	NO <sup>x</sup>	HCHO
0-3750 .....	TLEV ....	0.125	3.4	0.4	0.015
	LEV .....	0.075	3.4	0.2	0.015
	ULEV ....	0.040	1.7	0.2	0.008
3751-5750 .....	TLEV ....	0.160	4.4	0.7	0.018
	LEV .....	0.100	4.4	0.4	0.018
	ULEV ....	0.050	2.2	0.4	0.009

**TABLE R97-8.—FULL USEFUL LIFE STANDARDS (G/MI) FOR LIGHT LIGHT-DUTY TRUCKS CLASSIFIED AS TLEVs, LEVs, AND ULEVs**

Loaded vehicle weight	Vehicle emission category	NMOG	CO	NO <sub>x</sub>	HCHO	PM
0-3750 .....	TLEV ....	0.156	4.2	0.6	0.018	0.8
	LEV .....	0.090	4.2	0.3	0.018	0.8
	ULEV ....	0.055	2.1	0.3	0.011	0.4
3751-5750 .....	TLEV ....	0.200	5.5	0.9	0.023	0.8
	LEV .....	0.130	5.5	0.5	0.023	0.8
	ULEV ....	0.070	2.8	0.5	0.013	0.4

(ii) The particulate matter (PM) standards in paragraph (b)(1)(i) of this section are applicable to diesel vehicles only. All other light light-duty trucks must comply with the applicable PM standards in § 86.097-9.

(iii) Flexible-fuel and dual-fuel light light-duty trucks shall be certified to exhaust emission standards for NMOG established for the operation of the vehicle on an available fuel other than gasoline, and for the operation of the vehicle on gasoline.

(A) The applicable NMOG emission standards for flexible-fuel and dual-fuel light light-duty trucks when certifying the vehicle for operation on fuels other than gasoline shall be the NMOG standards in paragraph (b)(1)(i) of this section.

(B) The applicable NMOG emission standards for flexible-fuel and dual-fuel light light-duty trucks when certifying the vehicle for operation on gasoline shall be the NMOG standards in the rows designated with the applicable

vehicle emission category in tables R97-9 and R97-10:

TABLE R97-9.—INTERMEDIATE USEFUL LIFE NMOG STANDARDS (G/MI) FOR FLEXIBLE-FUEL AND DUAL-FUEL LIGHT LIGHT-DUTY TRUCKS CLASSIFIED AS TLEVS, LEVS, AND ULEVS

Loaded vehicle weight	Vehicle emission category	NMOG
0-3750 .....	TLEV ....	0.25
	LEV .....	0.125
	ULEV ....	0.075
3751-5750 .....	TLEV ....	0.32
	LEV .....	0.160
	ULEV ....	0.100

TABLE R97-10.—FULL USEFUL LIFE NMOG STANDARDS (G/MI) FOR FLEXIBLE-FUEL AND DUAL-FUEL LIGHT LIGHT-DUTY TRUCKS CLASSIFIED AS TLEVS, LEVS, AND ULEVS

Loaded vehicle weight	Vehicle emission category	NMOG
0-3750 .....	TLEV ....	0.31
	LEV .....	0.156
	ULEV ....	0.090
3751-5750 .....	TLEV ....	0.40
	LEV .....	0.200
	ULEV ....	0.130

TABLE R97-11.—INTERMEDIATE USEFUL LIFE STANDARDS FOR LIGHT LIGHT-DUTY TRUCKS

Loaded vehicle weight	Vehicle emission category	NMOG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	HCHO (g/mi)
0-3750 .....	LEV .....	0.100	3.4	0.3	0.015
	ULEV ....	0.058	2.6	0.3	0.012
3751-5750 .....	LEV .....	0.128	4.4	0.5	0.018
	ULEV ....	0.075	3.3	0.5	0.014

(3) Flexible-fuel and dual-fuel light-light-duty trucks when operated on

gasoline shall meet all intermediate useful life standards for the applicable

vehicle emission category in Table R97-12:

TABLE R97-12.—INTERMEDIATE USEFUL LIFE STANDARDS FOR FLEXIBLE-FUEL AND DUAL-FUEL LIGHT LIGHT-DUTY TRUCKS WHEN OPERATED ON GASOLINE

Loaded vehicle weight	Vehicle emission category	NMOG (g/mi)	CO (g/mi)	NO <sub>x</sub> (g/mi)	HCHO (g/mi)
0-3750 .....	LEV .....	0.188	3.4	0.3	0.015
	ULEV ....	0.100	2.6	0.3	0.012
3751-5750 .....	LEV .....	0.238	4.4	0.5	0.018
	ULEV ....	0.128	3.3	0.5	0.014

(d) *NMOG measurement.* NMOG emissions shall be measured in accordance with the "California Non-Methane Organic Gas Test Procedures." These procedures have been incorporated by reference. See § 86.1. NMOG emissions shall be compared to

the applicable NMOG emissions certification or in-use standard according to the following calculation procedures:

(1) For TLEVs, LEVs, and ULEVs designed to operate exclusively on any fuel other than conventional gasoline,

mile deterioration factors). For certification purposes only, Type C hybrid electric vehicles shall demonstrate compliance with 50,000 mile emission standards (using 50,000 mile deterioration factors) and 100,000 mile emission standards (using 100,000 mile deterioration factors).

(2) [Reserved].

(c) *Intermediate in-use emission standards.* (1) 1997 and 1998 model year light-light-duty trucks certified as LEVs or ULEVs shall meet the applicable intermediate useful life in-use standards in paragraphs (c)(2) or (c)(3) of this section, according to the following provisions:

(i) In-use compliance with standards beyond the intermediate useful life shall be waived for LEVs and ULEVs through the 1998 model year.

(ii) After the 1998 model year, the applicable in-use standards shall be the intermediate and full useful life standards in paragraph (b) of this section.

(2) Light-light-duty trucks, including flexible-fuel and dual-fuel light-light-duty trucks when operated on an available fuel other than gasoline, shall meet all intermediate useful life standards for the applicable vehicle emission category in Table R97-11:

Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” (incorporated by reference, see § 86.1), or established by the Executive Officer pursuant to Appendix VIII of the document referenced above and approved by the Administrator. The product of the NMOG exhaust emission levels and the reactivity adjustment factor shall be compared to the applicable certification or in-use exhaust NMOG mass emission standards established for the particular vehicle emission category to determine compliance.

(2) In addition to multiplying the exhaust NMOG mass emission levels by the applicable reactivity adjustment factor, TLEV, LEV, or ULEV natural gas vehicles shall multiply the exhaust methane mass emission level by the applicable methane reactivity adjustment factor in section 13 of the

“California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles” (incorporated by reference, see § 86.1), or established by the Executive Officer pursuant to Appendix VIII of the document referenced above and approved by the Administrator. The reactivity-adjusted NMOG value shall be added to the reactivity-adjusted methane value and then the sum shall be compared to the applicable certification or in-use exhaust NMOG mass emission standards established for the particular vehicle emission category to determine compliance.

(3) The exhaust NMOG mass emission levels for fuel-flexible and dual-fuel vehicles when operating on gasoline, or for vehicles designed to operate exclusively on gasoline, shall not be multiplied by a reactivity adjustment factor.

**§ 86.1710–97 Fleet average non-methane organic gas exhaust emission requirements for light-duty vehicles and light light-duty trucks.**

(a)(1) Each manufacturer shall certify light-duty vehicles or light light-duty trucks to meet the exhaust mass emission standards in this subpart for TLEVs, LEVs, ULEVs, ZEVs, or the exhaust emission standards of § 86.096–8(a)(1)(i) or § 86.097–9(a)(1)(i), such that the manufacturer’s fleet average NMOG values for light-duty vehicles and light light-duty trucks produced and delivered for sale in the applicable region according to the specifications of Tables R97–13 and R97–14 are less than or equal to the standards in Tables R97–13 and R97–14 in the rows designated with the applicable vehicle type, loaded vehicle weight, and model year. These standards shall apply at the applicable intermediate useful life:

TABLE R97–13.—FLEET AVERAGE NON-METHANE ORGANIC GAS EXHAUST EMISSION REQUIREMENTS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT LIGHT-DUTY TRUCKS PRODUCED FOR SALE IN THE NORTHEAST OZONE TRANSPORT REGION

Vehicle type	Loaded vehicle weight	Model year	Fleet average NMOG
Light-duty vehicles .....	All	1997	0.200
		1998	0.200
		1999	0.148
		2000	0.095
Light-duty trucks .....	0–3750	2001 and later	0.075
Light-duty trucks .....	3751–5750	1997	0.256
		1998	0.256
		1999	0.190
		2000	0.124
		2001 and later	0.100

TABLE R97–14.—FLEET AVERAGE NON-METHANE ORGANIC GAS EXHAUST EMISSION REQUIREMENTS (G/MI) FOR LIGHT-DUTY VEHICLES AND LIGHT LIGHT-DUTY TRUCKS PRODUCED FOR SALE IN THE UNITED STATES

Vehicle type	Loaded vehicle weight	Model year	Fleet average NMOG
Light-duty vehicles .....	All	2001 and later	0.075
			.....
and .....			.....
Light-duty trucks .....	0–3750		.....
Light-duty trucks .....	3751–5750	2001 and later	0.100

(2)(i) For the purpose of calculating fleet average NMOG values, a manufacturer may adjust the certification levels of hybrid electric vehicles (or “HEVs”) based on the range of the HEV without the use of the engine. See § 86.1702–97 for definitions

of HEV types for purposes of calculating adjusted NMOG emissions.

(ii) For the purpose of calculating fleet average NMOG values, vehicles that have no tailpipe emissions but use fuel-fired heaters and that are not certified as

ZEVs shall be treated as “Type A HEV ULEVs.”

(3)(i) Each manufacturer’s fleet average NMOG value for all light-duty vehicles and light light-duty trucks from 0–3750 lbs loaded vehicle weight produced and delivered for sale in the

applicable region according to Tables R97-13 and R97-14 shall be calculated in units of g/mi NMOG according to the following equation, where the term "Produced" means produced and delivered for sale in the applicable region according to Tables R97-13 and R97-14, and the term "Vehicles" means light-duty vehicles and light light-duty trucks from 0-3750 lbs loaded vehicle weight:  $\{[(\text{No. of Vehicles Certified to the Federal Tier I Exhaust Emission Standards and Produced}) \times (0.25)] + [(\text{No. of TLEVs Produced excluding HEVs}) \times (0.125)] + [(\text{No. of LEVs Produced excluding HEVs}) \times (0.075)] + [(\text{No. of ULEVs Produced excluding HEVs}) \times (0.040)] + (\text{HEV contribution factor})\} / (\text{Total No. of Vehicles Produced, including ZEVs and HEVs})$ .

(ii)(A) "HEV contribution factor" shall mean the NMOG emission contribution of HEVs to the fleet average NMOG value. The HEV contribution factor shall be calculated in units of g/mi as follows, where the term "Produced" means produced and delivered for sale in the applicable region according to Tables R97-13 and R97-14.

(B) HEV contribution factor =  $\{[(\text{No. of Type A HEV TLEVs Produced}) \times (0.100)] + [(\text{No. of Type B HEV TLEVs Produced}) \times (0.113)] + [(\text{No. of Type C HEV TLEVs Produced}) \times (0.125)]\} + \{[(\text{No. of Type A HEV LEVs Produced}) \times (0.057)] + [(\text{No. of Type B HEV LEVs Produced}) \times (0.066)] + [(\text{No. of Type C HEV LEVs Produced}) \times (0.075)]\} + \{[(\text{No. of Type A HEV ULEVs Produced}) \times (0.020)] + [(\text{No. of Type B HEV ULEVs Produced}) \times (0.030)] + [(\text{No. of Type C HEV ULEVs Produced}) \times (0.040)]\}$ .

(4)(i) Manufacturers that certify light light-duty trucks from 3751-5750 lbs loaded vehicle weight shall calculate a fleet average NMOG value in units of g/mi NMOG according to the following equation, where the term "Produced" means produced and delivered for sale in the applicable region according to Tables R97-13 and R97-14, and the term "Vehicles" means light light-duty trucks from 3751-5750 lbs loaded vehicle weight:  $\{[(\text{No. of Vehicles Certified to the Federal Tier I Exhaust Emission Standards and Produced}) \times (0.32)] + [(\text{No. of TLEVs Produced excluding HEVs}) \times (0.160)] + [(\text{No. of LEVs Produced excluding HEVs}) \times (0.100)] + [(\text{No. of ULEVs Produced excluding HEVs}) \times (0.050)] + (\text{HEV Contribution factor})\} / (\text{Total No. of Vehicles Produced, including ZEVs and HEVs})$ .

(ii)(A) "HEV contribution factor" shall mean the NMOG emission contribution of HEVs to the fleet average NMOG. The HEV contribution factor shall be calculated in units of g/mi as follows,

where the term "Produced" means produced and delivered for sale in the applicable region according to Tables R97-13 and R97-14.

(B) HEV contribution factor =  $\{[(\text{No. of Type A HEV TLEVs Produced}) \times (0.130)] + [(\text{No. of Type B HEV TLEVs Produced}) \times (0.145)] + [(\text{No. of Type C HEV TLEVs Produced}) \times (0.160)]\} + \{[(\text{No. of Type A HEV LEVs Produced}) \times (0.075)] + [(\text{No. of Type B HEV LEVs Produced}) \times (0.087)] + [(\text{No. of Type C HEV LEVs Produced}) \times (0.100)]\} + \{[(\text{No. of Type A HEV ULEVs Produced}) \times (0.025)] + [(\text{No. of Type B HEV ULEVs Produced}) \times (0.037)] + [(\text{No. of Type C HEV ULEVs Produced}) \times (0.050)]\}$ .

(5) The calculation of the fleet average NMOG value in paragraphs (a)(3) and (a)(4) of this section shall exclude the light-duty vehicles and light light-duty trucks purchased in the Northeast Ozone Transport Region by federal and state governments to comply with the Energy Policy Act, 42 U.S.C. 13212(b), 13257(o). In determining the quantity of vehicles excluded from the NMOG calculations, no covered manufacturer shall be required to exclude any vehicles that are not reported by the purchasing government in a timely letter to the representative of the covered manufacturer listed in the manufacturer's application. Such letter shall be considered timely only if it is received no later than February 1 of the calendar year following the end of the model year in which the purchases were made.

(6) Low volume manufacturers, as defined in § 86.1702-97, shall comply with the fleet average NMOG standards in paragraph (a)(1) of this section according to the following provisions:

(i) Low volume manufacturers shall be exempt from the requirements in paragraph (a)(1) of this section for model years prior to the 2001 model year. The requirements in paragraph (a)(1) of this section applicable to the 2001 and later model years shall apply to low volume manufacturers.

(ii) If a manufacturer's average California sales exceed 3000 units of new passenger cars, light-duty trucks, and medium-duty vehicles or average nationwide sales exceeds 40,000 units of new passenger cars and light-duty trucks based on the average number of vehicles sold for any three consecutive model years, the manufacturer shall no longer be treated as a low volume manufacturer and shall comply with the fleet average requirements applicable to all other manufacturers as specified in paragraph (a)(1) of this section beginning with the fourth model year after the last of the three consecutive model years.

(iii) If a manufacturer's average California sales are at or below 3000 units of new passenger cars, light-duty trucks, and medium-duty vehicles and average nationwide sales are at or below 40,000 units of new passenger cars and light-duty trucks based on the average number of vehicles sold for any three consecutive model years, the manufacturer shall be treated as a low volume manufacturer and shall be subject to requirements for low volume manufacturers as specified in paragraphs (a)(6)(i) and (ii) of this section beginning with the next model year.

(b) *Fleet average NMOG credit and debit calculations.* (1) For each averaging set, manufacturers that achieve applicable fleet average NMOG values lower than the fleet average NMOG requirement for the corresponding model year may generate credits.

(2) For each averaging set, manufacturers that obtain applicable fleet average NMOG values exceeding the fleet average NMOG requirement for the corresponding model year shall generate debits.

(3) For each averaging set, credits and debits are to be calculated according to the following equation and rounded, in accordance with the Rounding-Off Method specified in ASTM E29-90, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, to the nearest whole number (intermediate calculations will not be rounded) (This procedure has been incorporated by reference. See § 86.1.):

$$\text{Number of Credits/Debits} = \{[(\text{Applicable Fleet Average NMOG Requirement}) - (\text{Manufacturer's Applicable Fleet Average NMOG Value})] \times (\text{Applicable Production})\}$$

(4) For each region, the annual value of a manufacturer's available credits or level of debits shall be the sum of credits or debits derived from the respective class A and class B averaging sets for that region.

(c) *Fleet average NMOG credits.* (1) Credits may be used to offset fleet average NMOG debits of the same region (Ozone Transport Region or 37 States) in the current or future model year or transferred to another motor vehicle manufacturer.

(2) Credits may be used by the manufacturer that generated them or may be transferred to other parties for use by another motor vehicle manufacturer.

(3) Credits shall be earned on the last day of the model year and may be used

or traded at any time after they are earned, except that available credits must be used to offset any outstanding debits, prior to trading or carryover to the next model year.

(4) Credits earned in any given model year shall retain full value through the subsequent model year.

(5) Unused credits that are available at the end of the second, third, and fourth model years after the year in which the credits were generated shall be discounted to 50%, 25%, and 0% of the original value of the credits, respectively. The discounting of credits also applies to credits transferred between manufacturers.

(6) Credits may not be used to remedy any nonconformities determined by a Selective Enforcement Audit, recall testing, or testing performed with respect to Title 13, Chapter 2, Articles 1 and 2 of the California Code of Regulations.

(7) Prior to model year 2001, low volume manufacturers may earn credits in the OTR for transfer to other motor vehicle manufacturers for use in the OTR. Credits will be based on vehicle certification to NLEV standards and a fleet average NMOG below the applicable NLEV NMOG level for the OTR for that model year.

(8) Manufacturers may earn and bank credits in the 37 states prior to model year 2001. Credits will be based on vehicle certification to NLEV standards and a fleet average NMOG below the NMOG equivalent of the applicable emission standards and other requirements specified in §§ 86.096-8 and 86.097-9.

(d) *Fleet average NMOG debits.* (1) Manufacturers shall obtain enough credits to offset any debits by the end of the model year following the model year in which the debits were generated. Debits may be offset by generating credits, or acquiring credits generated by another manufacturer. Any credits used to offset debits shall be from the same region (Ozone Transport Region or 37 States) in which the debit was incurred.

(2) If debits are not equalized within the specified time period, the number of vehicles not meeting the fleet average NMOG standards shall be calculated by dividing the total amount of debits for the model year by the fleet average NMOG requirement applicable for the model year and averaging set in which the debits were first incurred. In the case where both averaging sets are in debit, any applicable credits would first be split between the sets. Then, noncompliance calculations would begin using the revised debit values. Each noncomplying vehicle will be

deemed to be in violation of the conditions of its certificate. EPA will determine these vehicles by designating vehicles in those engine families with the highest certification NMOG emission values first and continuing until a number of vehicles equal to the calculated number of noncomplying vehicles as determined above is reached. EPA may void *ab initio* the certificates of conformity for these vehicles. Failure by a manufacturer to remedy a debit situation within the specified time period may also result in civil penalties.

(e) *Maintenance of records.* (1) The manufacturer producing any vehicles and/or trucks subject to the provisions in this subpart shall establish, maintain, and retain the following information in adequately organized and indexed records for each averaging set of each model year:

- (i) Model year;
- (ii) Averaging set;
- (iii) Applicable fleet average NMOG value achieved; and
- (iv) All values used in calculating the applicable fleet average NMOG value achieved.

(2) The manufacturer producing any vehicles and/or trucks subject to the provisions in this subpart shall establish, maintain, and retain the following information in adequately organized and indexed records for each vehicle or truck subject to the provisions of this subpart:

- (i) Model year;
- (ii) Averaging set;
- (iii) EPA engine family;
- (iv) Assembly plant;
- (v) Vehicle identification number;
- (vi) NMOG standard to which the vehicle or truck is certified; and
- (vii) Information on the point of first retail sale, including the purchaser, city, and state.

(3) The manufacturer shall 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 in requiring 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 shall submit to the Administrator the information that the manufacturer is required to retain.

(6) EPA may void *ab initio* certificates of conformity for vehicles and engines for which the manufacturer fails to retain the records required in this section or to provide such information to the Administrator upon request.

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

(2) In the event of a credit shortfall resulting from a credit transfer between manufacturers, both the credit provider and recipient are liable, except in cases involving fraud. EPA may void the certificates of those LDVs and LDTs contributing to the credit shortfall.

(g) *Reporting.* (1) Each manufacturer shall submit an annual report. The annual report shall contain, for each averaging set, the applicable fleet average NMOG value achieved, all values required to calculate the NMOG value, the number of credits generated or debits incurred, and all the values required to calculate the credits/debits. For each region (Ozone Transport Region and 37 States), the annual report shall contain the resulting balance of credits or debits.

(2) The annual report shall also include documentation on all credit transactions for that calendar year. Information for each transaction shall include:

- (i) Name of credit provider;
- (ii) Name of credit recipient;
- (iii) Date the transfer occurred;
- (iv) Quantity of credits transferred;
- (v) Model year in which the credits were earned; and
- (vi) Region (Ozone Transport Region or 37 States) to which the credits belong.

(3) Manufacturers shall submit annual reports 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 shall be submitted to: Director, Manufacturers Operations Division (6405J), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

(4) 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.

(5) If EPA or the manufacturer determines that a reporting error occurred on an annual report previously submitted to EPA, the manufacturer's

credit/debit calculations will be recalculated. EPA may void erroneous credits and shall adjust erroneous debits.

(h) *Notice of opportunity for hearing.* Any voiding of the certificate under this section will be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.614–84 and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

**§ 86.1711–97 through § 86.1712–97 [Reserved]**

**§ 86.1713–97 Light-duty exhaust durability programs.**

When applying § 86.094–13 to the National LEV Program, that section shall be modified according to the provisions contained in section 11.a. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1714–97 Small volume manufacturers certification procedures.**

When applying § 86.096–14 to the National LEV Program, manufacturers meeting the definition of “low-volume manufacturer” are not entitled to the use of the provisions of § 86.096–14 unless they also meet the definition of “small volume manufacturer.”

**§ 86.1715–97 [Reserved]**

**§ 86.1716–97 Prohibition of defeat devices.**

When applying § 86.094–16 to the National LEV Program, that section shall be modified according to the provisions contained in section 11.l. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1717–97 Emission control diagnostic system for 1997 and later light-duty vehicles and light-duty trucks.**

Demonstration of compliance with California OBD II requirements (Title 13 California Code 1968.1, as modified pursuant to California Mail Out #95–03 (January 19, 1995) (these procedures are incorporated by reference; see § 86.1), shall satisfy the requirements of this section with the following exceptions:

(1) Compliance with Title 13 California Code 1968.1(d), pertaining to tampering protection, is not required to satisfy the requirements of this section.

(2) The provisions relating to fines for deficiencies in paragraphs (m) (6.1) and (6.2) of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993, do not apply. These procedures are incorporated by reference (see § 86.1).

(b) “Small-volume manufacturer” is defined in § 86.096–14.

**§ 86.1718–97 through § 86.1720–97 [Reserved]**

**§ 86.1721–97 Application for certification.**

When applying § 86.096–21 to the National LEV Program, that section shall be modified according to the provisions contained in sections 4.a. and 11.f. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1722–97 [Reserved]**

**§ 86.1723–97 Required data.**

When applying § 86.096–23 to the National LEV Program, that section shall be modified according to the provisions contained in sections 4.b., 9.f., and 11.c., 11.e., and 11.k. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1724–97 Test vehicles and engines.**

When applying § 86.095–24 to the National LEV Program, that section shall be modified according to the provisions contained in section 4.c. of the “California Exhaust Emission Standards and Test Procedure for 1988 and subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1725–97 Maintenance.**

When applying § 86.094–25 to the National LEV Program, that section shall be modified according to the provisions contained in section 5.a. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated, with the exception of

section 5.a. paragraph 5, by reference. See § 86.1.

**§ 86.1726–97 Mileage and service accumulation; emission measurements.**

When applying § 86.096–26 to the National LEV Program, that section shall be modified according to the provisions contained in sections 6.a., 11.c., and 11.k. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1727–97 [Reserved]**

**§ 86.1728–97 Compliance with emission standards.**

When applying § 86.094–28 to the National LEV Program, that section shall be modified according to the provisions contained in section 6.b. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1729–97 through § 86.1733–97 [Reserved]**

**§ 86.1734–97 Alternative procedure for notification of additions and changes.**

When applying § 86.082–34 to the National LEV Program, that section shall be modified according to the provisions contained in section 8 of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1735–97 Labeling.**

When applying § 86.096–35 to the National LEV Program, that section shall be modified according to the provisions contained in the “California Motor Vehicle Emission Control Label Specifications” as amended July 12, 1991, with the exception of the provisions in paragraph 3(d)(10). These provisions are incorporated by reference. See § 86.1.

**§ 86.1736–97 through § 86.1737–97 [Reserved]**

**§ 86.1738–97 Maintenance instructions.**

When applying § 86.087–38 to the National LEV Program, that section shall be modified according to the provisions contained in section 5.b. of the

“California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1739–97 Submission of maintenance instructions.**

When applying § 86.079–39 to the National LEV Program, that section shall be modified according to the provisions contained in section 5.c. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1740–97 through § 86.1769–97 [Reserved]**

**§ 86.1770–97 Evaporative emissions testing.**

(a) Testing for evaporative emissions shall be conducted according to the provisions of § 86.130–96, with the following exceptions:

(1) Section 86.107–96 shall be applied as follows:

(i) Where a temperature of 95°F is specified, 105°F shall be used instead.

(ii) Where a temperature profile is specified, it shall be replaced by a profile that cycles from 65°F to 105°F.

(2) Section 86.117–96 shall be applied as follows:

(i) Where a temperature of 96°F is specified, 105°F shall be used instead.

(ii) Where a temperature profile is specified, it shall be replaced by a profile that cycles from 65°F to 105°F.

(3) The temperature profile specified in § 86.133–96 shall instead be replaced by a profile that cycles from 65°F to 105°F.

(4) Where a temperature of 95°F is specified in § 86.134–96, 105°F shall be used instead.

(5) Where a temperature of 95°F is specified in § 86.138–96, 105°F shall be used instead.

(b) [Reserved]

**§ 86.1771–97 Fuel specifications.**

When applying § 86.113 to the National LEV Program, except when conducting exhaust emission testing at high altitude conditions and evaporative emission testing at high altitude conditions, that section shall be modified according to the provisions contained in section 9.a. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty

Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1772–97 Test sequence; general requirements.**

When applying § 86.130 to the National LEV Program, that section shall be modified according to the provisions contained in sections 9.c. and 11.k. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” and “California Non-Methane Organic Gas Test Procedures”, both amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1773–97 Vehicle preconditioning.**

When applying § 86.132 to the National LEV Program, that section shall be modified according to the provisions contained in section 9.d. of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1774–97 Exhaust sample analysis.**

When applying § 86.140 to the National LEV program, that section shall be modified according to the provisions contained in “California Non-Methane Organic Gas Test Procedures” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1775–97 Records Required.**

When applying § 86.142 to the National LEV Program, that section shall be modified according to the provisions contained in section 9 (except section 9.b paragraphs 1 through 4) and Appendix IV of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” and “California Non-Methane Organic Gas Test Procedures” both amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1776–97 Calculations; exhaust emissions.**

When applying § 86.144 to the National LEV Program, that section shall be modified according to the provisions contained in sections 9.g., 13, and Appendix V of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty

Trucks and Medium-Duty Vehicles” and the “California Non-Methane Organic Gas Test Procedures” both amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1777–97 Calculations; particulate emissions.**

When applying § 86.145 to the National LEV Program, that section as it pertains to the testing of diesel particulate emissions shall be modified according to the provisions contained in Appendix V of the “California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles” as amended September 22, 1993. These provisions are incorporated by reference. See § 86.1.

**§ 86.1778–97 General enforcement provisions.**

(a) The provisions of sections 203–208 of the Act (42 U.S.C. 7522–7525, 7541–7542) apply to all motor vehicles manufactured by a covered manufacturer under this program, and to all covered manufacturers and all persons with respect to such vehicles.

(b) Violation of the requirements of this subpart shall subject a person to the jurisdiction and penalty provisions of sections 204–205 of the Act (42 U.S.C. 7522–7523).

(c) EPA may not issue a certificate of conformity to a covered manufacturer, as defined in § 86.1702–97, except based on compliance with the standards and requirements in this subpart.

**§ 86.1779–97 Prohibited acts.**

(a) The following acts and the causing thereof are prohibited:

(1) In the case of a covered manufacturer, as defined by § 86.1702–97, of new motor vehicles or new motor vehicle engines for distribution in commerce, the sale, or the offering for sale, or the introduction, or delivery for introduction, into commerce, (or in the case of any person, except as provided by regulation of the Administrator), the importation into the United States of any new motor vehicle or new motor vehicle engine subject to this subpart, unless such vehicle or engine is covered by a certificate of conformity issued (and in effect) under regulations found in this subpart (except as provided in section 203(b) of the Act (42 U.S.C. 7522(b) or regulations promulgated thereunder).

(2)(i) For any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 208

(42 U.S.C. 7542) with regard to covered vehicles.

(ii) For a person to fail or refuse to permit entry, testing, or inspection authorized under section 206(c) (42 U.S.C. 7525(c)) or section 208 (42 U.S.C. 7542) with regard to covered vehicles.

(iii) For a person to fail or refuse to perform tests, or to have tests performed as required under section 208 (42 U.S.C. 7542) with regard to covered vehicles.

(iv) For a person to fail to establish or maintain records as required under §§ 86.1723–97 and 86.1775–97 with regard to covered vehicles.

(v) For any manufacturer to fail to make information available as provided by regulation under section 202(m)(5) (42 U.S.C. 7521(m)(5)) with regard to covered vehicles.

(3)(i) For any person to remove or render inoperative any device or element of design installed on or in a covered vehicle or engine in compliance with regulations under this subpart prior to its sale and delivery to the ultimate purchaser, or for any person knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser.

(ii) For any person to manufacture, sell or offer to sell, or install, any part or component intended for use with, or as part of, any covered vehicle or engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a covered vehicle or engine in compliance with regulations issued under this subpart, and where the person knows or should know that the part or component

is being offered for sale or installed for this use or put to such use.

(4) For any manufacturer of a covered vehicle or engine subject to standards prescribed under this subpart:

(i) To sell, offer for sale, introduce or deliver into commerce, or lease any such vehicle or engine unless the manufacturer has complied with the requirements of section 207 (a) and (b) of the Act (42 U.S.C. 7541(a), (b)) with respect to such vehicle or engine, and unless a label or tag is affixed to such vehicle or engine in accordance with section 207(c)(3) (42 U.S.C. 7541(c)(3)).

(ii) To fail or refuse to comply with the requirements of section 207(c) or (e) of the Act (42 U.S.C. 7541(c) or (e)).

(iii) Except as provided in section 207(c)(3) of the Act (42 U.S.C. 7541(c)(3)), to provide directly or indirectly in any communication to the ultimate purchaser or any subsequent purchaser that the coverage of a warranty under the Act is conditioned upon use of any part, component, or system manufactured by the manufacturer or a person acting for the manufacturer or under its control, or conditioned upon service performed by such persons.

(iv) To fail or refuse to comply with the terms and conditions of the warranty under section 207 (a) or (b) of the Act (42 U.S.C. 7541(a) or (b)).

(b) For the purposes of enforcement of this subpart, the following apply:

(1) No action with respect to any element of design referred to in paragraph (a)(4) of this section (including any adjustment or alteration of such element) shall be treated as a prohibited act under paragraph (a)(4) of this section if such action is in

accordance with section 215 (42 U.S.C. 7549);

(2) Nothing in paragraph (a)(4) of this section is to be construed to require the use of manufacturer parts in maintaining or repairing a covered vehicle or engine. For the purposes of the preceding sentence, the term “manufacturer parts” means, with respect to a motor vehicle engine, parts produced or sold by the manufacturer of the motor vehicle or motor vehicle engine;

(3) Actions for the purpose of repair or replacement of a device or element of design or any other item are not considered prohibited acts under paragraph (a) of this section if the action is a necessary and temporary procedure, the device or element is replaced upon completion of the procedure, and the action results in the proper functioning of the device or element of design;

(4) Actions for the purpose of a conversion of a motor vehicle or motor vehicle engine for use of a clean alternative fuel (as defined in Title II of the Act) are not considered prohibited acts under paragraph (a) of this section if:

(i) The vehicle complies with the applicable standard when operating on the alternative fuel, and the device or element is replaced upon completion of the conversion procedure; and

(ii) In the case of engines converted to dual fuel or flexible use, the action results in proper functioning of the device or element when the motor vehicle operates on conventional fuel.

[FR Doc. 95–24563 Filed 10–6–95; 8:45 am]

**BILLING CODE 6560–50–P**