**ENVIRONMENTAL PROTECTION AGENCY**
**40 CFR Parts 85, 86, 89, 90, 91, 92, 94, 1039, 1048, 1051, 1065, and 1068**
**[AMS-FRL-xxxx-x ]**

**RIN 2060-xxxx**

**Test Procedures for Testing Highway and Nonroad Engines and Omnibus Technical Amendments**

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

**ACTION: Notice of Proposed Rulemaking.**

**SUMMARY:** This regulation aims to revise and harmonize test procedures from the various EPA programs for controlling engine emissions. It will not address emission standards, nor is it intended to change the emission reductions expected from these EPA programs. Rather, it proposes to amend 40 CFR part 1065, which contains laboratory specifications for equipment and test fuels, instructions for preparing engines and running tests, calculations for determining final emission levels from measured values, and instructions for running emission tests using portable measurement devices outside the laboratory. Part 1065 currently applies to land-based nonroad diesel engines, land-based nonroad spark-ignition engines over 19 kilowatts, and recreational vehicles. These proposed revisions will update part 1065 to deal more effectively with the more stringent standards recently promulgated by EPA and will also clarify and better define certain elements of the required test procedures. In particular, the proposed amendments will better specify the procedures applicable to field testing under part 1065.

This notice also proposes to apply part 1065 to highway heavy-duty diesel engine regulations. This action is appropriate because EPA has historically drafted a full set of testing specifications for each vehicle or engine category subject to emission standards as each program was developed over the past three decades. This patchwork approach has led to some variation in test parameters across programs, which we hope to address by adopting a common set of test requirements. The primary goal of this effort is to create unified testing requirements for all engines, which when implemented will streamline laboratory efforts for EPA and industry.

This action will also include other technical changes intended to clarify and better define requirements for several different EPA engine programs. These changes are relatively minor and are technical in scope.

**DATES:** Comments: Send written comments on this proposed rule by **[October 15, 2004]**. See Section IV for more information about written comments.

Hearings: We will hold an informal public workshop in Ann Arbor on **[September 8 and 9, 2004]**. If anyone requests a public hearing , we will hold it on **[September 13, 2004]**. To request a public hearing, send a request to the contact in "FOR FURTHER INFORMATION CONTACT" by August 13, 2004. See Section IV for more information about public hearings.

**ADDRESSES:** You may submit comments, identified by docket number OAR-2004-0017, by any of the following methods:
Federal Rulemaking Portal: http://www.regulations.gov. Follow the on-line instructions for submitting comments.

Agency Web Site: http://www.epa.gov/edocket. Follow the instructions for submitting comments. Note that this is not available until after this proposal is published in the *Federal Register*.
E-mail: testamendments@epa.gov. Specify docket number OAR-2004-0017 in the body of the message.
Fax: (202) 260-4400.
Mail or Hand Delivery: Environmental Protection Agency, Air Docket, Mailcode 6102T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.
Hand Delivery or Courier: EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC., Attention Docket ID No. A-2001-28. Such deliveries are only accepted during the Docket's normal hours of operation from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.
Instructions: Include the agency name and docket number in all submissions for this rulemaking. All comments received will be posted without change to http://www.epa.gov/edocket, including any personal information provided. For detailed instructions on submitting comments and additional information on the rulemaking process, see the "Public Participation" heading of the SUPPLEMENTARY INFORMATION section of this document.
Docket: For access to the docket to read background documents or comments received, go to the Web site at the url identified above or to the Air Docket at the address identified above.

**FOR FURTHER INFORMATION CONTACT:** Alan Stout, U.S. EPA, Voice-mail (734) 214-4636; E-mail: stout.alan@epa.gov

**SUPPLEMENTARY INFORMATION**:

A. Regulated Entities

This proposed action would affect companies that manufacture or sell engines. Regulated categories and entities include:

| Category | NAICS Codes[a] | Examples of Potentially Regulated Entities |
|---|---|---|
| Industry | 333618 | Manufacturers of new engines |

[a]North American Industry Classification System (NAICS)

This list is not intended to be exhaustive, but rather provides a guide regarding entities likely to be regulated by this action. To determine whether particular activities may be regulated by this action, you should carefully examine the proposed regulations. You may direct questions regarding the applicability of this action to the person listed in "FOR FURTHER INFORMATION CONTACT."

B. How Can I Get Copies Of This Document and Other Related Information ?

1. *Docket.* EPA has established an official public docket for this action under Docket ID No. OAR-2004-0017. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is

restricted by statute. Documents in the official public docket are listed in the index list in EPA's electronic public docket and comment system, EDOCKET. Documents may be available either electronically or in hard copy. Electronic documents may be viewed through EDOCKET. Hard copy documents may be viewed at the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. Docket in The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744.

This proposal relies in part on information related to our November 2002 final rule, which can be found in Public Docket A-2000-01. This docket is incorporated by reference into the docket for this action, OAR-2004-0017.

2. *Electronic Access.* You may access this Federal Register document electronically through the EPA Internet under the "Federal Register" listings at *http://www.epa.gov/fedrgstr/* Or you can go to the federal-wide eRulemaking site at www.regulations.gov.

An electronic version of the public docket is available through EDOCKET. You may use EDOCKET at http://www.epa.gov/edocket/ to submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number.

Certain types of information will not be placed in the EDOCKET. Information claimed as CBI and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA's electronic public docket. When a document is selected from the index list in EDOCKET, the system will identify whether the document is available for viewing in EPA's electronic public docket. Publicly available docket materials that are not available electronically may be viewed at the docket facility identified in Unit I.B. EPA intends to work towards providing electronic access to all of the publicly available docket materials through EPA's electronic public docket.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the Docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket

staff.

C. *How and To Whom Do I Submit Comments?*

We are opening a formal comment period by publishing this document. We will accept comments for the period indicated under "DATES" above. If you have an interest in the program described in this document, we encourage you to comment on any aspect of this rulemaking.

Your comments will be most useful if you include appropriate and detailed supporting rationale, data, and analysis. If you disagree with parts of the proposal, we encourage you to suggest and analyze alternate approaches to meeting the air quality goals described in this proposal. You should send all comments, except those containing proprietary information, to our Air Docket (see "Addresses") before the end of the comment period.

You may submit comments electronically, by mail, or through hand delivery/courier. To ensure proper receipt by EPA, identify the appropriate docket identification number in the body of your comment. Submit your comments within the specified comment period. Comments received after the close of the comment period will be marked "late." EPA is not required to consider these late comments. If you wish to submit CBI or information that is otherwise protected by statute, please follow the instructions in Section IX.D. Do not use EPA Dockets or e-mail to submit CBI or information protected by statute.

1. Electronically

If you submit an electronic comment as prescribed below, we recommend that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit, and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows us to contact you if we cannot read your comment or if we need further information on the substance of your comment. Our policy is that we will not edit your comment; any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket and made available in EPA's electronic public docket. If we cannot read your comment due to technical difficulties and cannot contact you for clarification, we may not be able to consider your comment.

i. EPA Dockets

To submit comments on EPA's electronic public docket, go directly to EPA Dockets at http://www.epa.gov/edocket and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet Home Page, select "Information Sources," "Dockets," and "EPA Dockets." Once in the system, select "Quick Search," and then key in Docket ID No. OAR-2004-0017. The system is an "anonymous access" system, which means we will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

ii. E-mail

Comments may be sent by electronic mail to testamendments@epa.gov. In contrast to EPA's electronic public docket, EPA's e-mail system is not an "anonymous access" system. If you send a comment via electronic mail directly to the Docket without going through EPA's electronic public docket, the e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured are included and made available as part of the comment that is placed in the official public docket.

iii. Disk or CD ROM

You may submit comments on a disk or CD ROM that you send to the mailing address identified in Section IX.A.2 below. Avoid the use of special software, characters, and any form of encryption.

2. By Mail

Send your comments to: Air Docket, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.

3. By Hand Delivery or Courier

Deliver your comments to: EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC., Attention Docket ID No. A-2001-28. Such deliveries are only accepted during the Docket's normal hours of operation from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.

*D. How Should I Submit CBI to the Agency?*

Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: U.S. Environmental Protection Agency, Assessment and Standards Division, 2000 Traverwood Drive, Ann Arbor, MI, 48105, Attention Docket No. OAR-2004-0017. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

In addition to one complete version of the comment that includes any information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket and EPA's electronic public docket. If you submit the copy that does not contain CBI on disk or CD ROM, mark the outside of the disk or CD ROM clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and EPA's electronic public docket without prior notice. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the FOR FURTHER INFORMATION CONTACT section.

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## I. Modified Test Procedures for Highway and Nonroad Engines

### A. Incorporation of Nonroad Test Procedures for Heavy Duty Highway Engines

As part of our initiative to update the content, organization and writing style of our regulations, we are proposing revisions to our test procedures.[1] We have grouped all of our engine dynamometer and field testing test procedures into one part entitled, "Part 1065: Test Procedures." For each engine or vehicle sector for which we have recently promulgated standards (such as land-based nonroad diesel engines or recreational vehicles), we identified an individual part as the standard-setting part for that sector. These standard-setting parts then refer to one common set of test procedures in part 1065. We intend in this rule to continue this process of having all our engine programs refer to a common set of procedures by applying part 1065 to all heavy-duty highway engines.

In the past, each engine or vehicle sector had its own set of testing procedures. There are many similarities in test procedures across the various sectors. However, as we introduced new regulations for individual sectors, the more recent regulations featured test procedure updates and improvements that the other sectors did not have. As

[1] For an overview of our new regulatory organization, refer to our fact sheet entitled, "Plain-Language Format of Emission Regulations for Nonroad Engines" EPA420-F-02-046, September 2002.

this process continued, we recognized that a single set of test procedures would allow for improvements to occur simultaneously across engine and vehicle sectors. A single set of test procedures is easier to understand than trying to understand many different sets of procedures, and it is easier to move toward international test procedure harmonization if we only have one set of test procedures. We note that procedures that are particular for different types of engines or vehicles, for example, test schedules designed to reflect the conditions expected in use for particular types of vehicles or engines, will remain separate and would be reflected in the standard-setting parts of the regulations.

In addition to reorganizing and rewriting the test procedures for improved clarity, we are proposing to make a variety of changes to improve the content of the testing specifications, including the following:

- Writing specifications and calculations in international units
- Adding procedures by which manufacturers can demonstrate that alternate test procedures are equivalent to specified procedures.
- Including specifications for new measurement technology that has been shown to be equivalent or more accurate than existing technology; procedures that improve test repeatability, calculations that simplify emissions determination; new procedures for field testing engines, and a more comprehensive set of definitions, references, and symbols.
- Defining calibration and accuracy specifications that are scaled to the applicable standard, which allows us to adopt a single specification that applies to a wide range of engine sizes and applications.

Some emission-control programs already rely on the test procedures in part 1065. These programs regulate land-based nonroad diesel engines, recreational vehicles, and nonroad spark-ignition engines over 19 kW.

In this notice, we are proposing to adopt the lab-testing and field-testing specifications in part 1065 for all heavy-duty highway engines, as described in Section II.I. These procedures would replace those currently published in subpart N in 40 CFR part 86. We are proposing a gradual transition from the part 86 procedures. We will allow the use of part 1065 procedures beginning in the 2006 model year. By the 2008 model year, part 1065 procedures will be required for any new testing. For all testing completed for 2007 and earlier model years, manufacturers may continue to rely on carryover test data based on part 86 procedures to certify engine families in later years. In addition, other subparts in part 86, as well as regulations for many different nonroad engines refer to the test procedures in part 86. We are including updated references for all these other programs to refer instead to the appropriate cite in part 1065.

Part 1065 is also advantageous for in-use testing because it specifies the same procedures for all common parts of field testing and laboratory testing. It also contains new provisions that help ensure that engines are tested in a laboratory in a way that is consistent with how they operate in use. These new provisions will ensure that engine dynamometer lab testing and field testing are conducted in a consistent way.

In the future, we may propose to apply the test procedures specified in part 1065 to other types of engines, so we encourage companies involved in producing or testing other engines to stay informed of developments related to these test procedures. We also request comment on whether we should make part 1065 applicable for light-duty vehicles, light-duty trucks, motorcycles, and aircraft in the future. Although light-duty vehicles, light-duty trucks,

and motorcycles are tested on chassis dynamometers, rather than engine dynamometers, there are several aspects of testing that are common. For example, emission sampling systems, dilution systems, gas analyzers, PM measurement equipment, some test sequences, fuels, analytical gas standards, and specifications related to oxygenated fuels are all similar. However, there are differences, such as chassis dynamometer specifications, vehicle intake air, exhaust system, and coolant specifications, some test sequences such as evaporative and refueling tests, vehicle preparation, and some emission calculations (e.g., g/mi vs g/kW-hr) that would have to be addressed in any future decision to apply part 1065 to these engines.

Although testing aircraft engines requires some special provisions, there are several aspects of testing that are common, such as emission sampling systems, dilution systems, gas analyzers, PM measurement equipment, some test sequences, fuels, analytical gas standards, and specifications related to oxygenated fuels.

**B. Revisions to Part 1065**

Part 1065 was originally adopted on November 8, 2002 (67 FR 68242), and was initially applicable to standards regulating large nonroad spark-ignition engines and recreational vehicles under 40 CFR parts 1048 and 1051. The recent rulemaking adopting emission standards for nonroad diesel engines has also made part 1065 optional for Tier 2 and Tier 3 standards and required for Tier 4 standards. The test procedures currently in part 1065 are sufficient to conduct testing, but we are proposing to reorganize and add content to improve these procedures. In particular, we propose to reorganize part 1065 by subparts as shown below:

Subpart A: general provisions; global information on applicability, alternate procedures units of measure, etc.
Subpart B: equipment specifications; required hardware for testing
Subpart C: measurement instruments
Subpart D: calibration and performance checks; for measurement systems
Subpart E: engine selection, preparation, and maintenance
Subpart F: test protocols; step-by-step sequences for testing and test validation.
Subpart G: calculations and required information
Subpart H: fuels, fluids, and analytical gases
Subpart I: oxygenated fuels; special test procedures
Subpart J: field testing
Subpart K: definitions, references, and symbols

We propose to scale specifications for test equipment and measurement instruments by parameters such as engine power, engine speed and the emission standards to which an engine must comply. That way a single set of specifications will cover the full range of engine sizes and our full range of emission standards and our regulations will therefore specify equipment and instruments that are appropriate for a given engine size and emission standard. Manufacturers will be able to use these specifications to determine what range of engines and emission standards may be tested using a given laboratory or field testing system.

The new content that we are proposing for part 1065 is mostly a combination of content from our most recent updates to other test procedures and from test procedures specified by the International Organization for Standardization (ISO). In some cases, however, new content is proposed that never existed in previous regulations.

This new content addresses very recent issues such as measuring very low concentrations of emissions, using new measurement technology, and performing field testing. A full description of the changes is in the Regulatory Support Document that accompanies this proposal. Below is a brief description of the content of each subpart, highlighting some of the new content.

**1. Subpart A General Provisions**

In Subpart A we identify the applicability of part 1065 and describe how procedures other than those in part 1065 may be used to comply with a standard-setting part. We specify that testing must be conducted in a way that represents in-use engine operation, such that in the rare case where provisions in part 1065 result in unrepresentative testing, other procedures would be used. In subpart A we indicate the conventions we use regarding units and certain measurements and we discuss recordkeeping. We also provide an overview of how emissions and other information are used to determine final emission results. The regulations in §1065.15 include a figure illustrating the different ways we allow brake-specific emissions to be calculated.

In Subpart A we describe how continuous and batch sampling may be used to determine total emissions. We also describe the two ways of determining total work. Note that the figure indicates our default procedures and those procedures that would require additional approval before we would allow them for use.

**2. Subpart B Equipment Specifications**

Subpart B first describes engine and dynamometer related systems. Many of these specifications are scaled to an engine's size, speed, torque, exhaust flow rate, etc. We specify the use of in-use engine subsystems such as air intake systems wherever possible in order to best represent in-use operation when an engine is tested in a laboratory.

Subpart B next describes sampling dilution systems. These include specifications for the allowable components, materials, pressures, and temperatures. We describe how to sample crankcase emissions. We also propose to allow limited use of partial-flow dilution for PM sampling. We request comment on whether or not our specifications for partial-flow dilution and our specifications for proportional-sampling validation (i.e., §1065.140(d) and §1065.545) are sufficient for us to allow partial-flow dilution for all PM sampling without requiring alternate system approval.

Subpart B also specifies environmental conditions for PM filter stabilization and weighing. Although these provisions mostly come from our recent update to part 86, subpart N, we also describe some new aspects in detail.

The regulations in §1065.101 include a diagram illustrating all the available equipment for measuring emissions.

**3. Subpart C Measurement Instruments**

Subpart C specifies the requirements for the measurement instruments used for testing. In subpart C we

recommend accuracy, repeatability, noise, and response time specifications for individual measurement instruments, but we require that overall measurement systems meet the calibration and performance checks in Subpart D.

In some cases we allow new instrument types to be used where we previously did not allow them. For example, we propose to allow the use of a nonmethane cutter for NMHC measurement, we propose to allow the use of non-dispersive ultra-violet analyzers for $NO_x$ measurement, we propose to allow the use of zirconia sensors for $NO_x$ and $O_2$ measurement, we propose to allow various raw exhaust flow meters for laboratory and field testing measurement, and we propose to allow ultrasonic flow meters for CVS systems.

**4. Subpart D Calibration and Performance Checks**

Subpart D describes what we mean when we specify accuracy, repeatability and other performance parameters. We propose calibration and performance checks that scale with engine size and the emission standards to which an engine is certified. We propose to replace some of what we have called "calibrations" in the past with a series of performance checks. Because new instruments have built-in routines that linearize signals and compensate for various interferences, our typical calibration specifications sometimes conflicted with an instrument manufacturer's instructions. In addition we propose new performance checks to ensure that the new instruments in Subpart C are used correctly.

**5. Subpart E Engine Selection, Preparation, and Maintenance**

Subpart E describes how to select, prepare, and maintain a test engine. We updated these provisions to include both gasoline and diesel engines. This subpart is relatively short, and we did not make many changes to its original content.

**6. Subpart F Test Protocols**

Subpart F describes the step-by-step protocols for engine mapping, test cycle generation, test cycle validation, pre-test preconditioning, engine starting, emission sampling, and post-test validations. We propose an improved way to map and generate cycles for constant-speed engines. The constant-speed mapping procedure we propose better represents in-use engine operation. We propose a more streamlined set of test cycle and proportional validation criteria. We propose to allow modest corrections for noise and drift of emission analyzer signals within a certain range. We also propose a recommended procedure for weighing PM samples.

**7. Subpart G Calculations and Required Information**

Subpart G describes all of the calculations that are required in part 1065. We propose definitions of statistical quantities such as mean, standard deviation, slope, intercept, t-test, F-test, etc. By defining these quantities mathematically we intend to resolve any potential mis-communication when we discuss these quantities in other subparts. We propose all of the calculations for calibrations and emission calculations in international units to comply with 15 CFR 1170, which removes the voluntary aspect of the conversion to international units for Federal

agencies. Furthermore, Executive Order 12770 (56 FR 35801, July 29, 1991) reinforces this policy by providing Presidential authority and direction for the use of the metric system of measurement by Federal agencies and departments. For our standards that are not completely in international units (i.e. grams/horsepower-hour, grams/mile), we specify in part 1065 the correct use of internationally recognized conversion factors.

We also propose to calculate emissions based on molar quantities for flow rates, instead of volume or mass. This change eliminates the frequent confusion caused by the use of different reference points for standard pressure and standard temperature. Instead of declaring standard densities at standard pressure and standard temperature to convert volumetric concentration measurements to mass-based units, we declare molar masses for individual elements and compounds. Since these values are independent of all other parameters, they are known to be constant.

**8. Subpart H Fuels, Fluids, and Analytical Gases**

Subpart H specifies test fuels, lubricating oils and coolants, and analytical gases for testing. Because standard-setting parts for diesel engines now refer to part 1065, we are proposing diesel fuel specifications in part 1065. These fuel specifications are consistent with those previously adopted, with one exception. We propose to eliminate the Cetane Index specification for all diesel fuels because the existing specification for Cetane Number sufficiently determines the cetane levels of diesel test fuels. We propose to eliminate any detailed specification for service accumulation fuel. Instead, we propose that service accumulation fuel may be a commercially available in-use fuel. This change helps ensure that testing is representative of in-use engine operation. We propose to scale analytical gas specifications with the standards, which an engine must meet.

In addition, we request comment on whether or not we should consider revising our specifications for ultra low-sulfur diesel test fuel to reflect the expected lower distillation range relative to fuels with higher sulfur levels. We request comment on whether or not widening the distillation ranges by lowering the lower limit by 5 °C would better reflect in-use diesel fuels with sulfur concentrations below 15 ppm. The following table shows alternative distillation temperatures for ultralow-sulfur diesel test fuel, with the lower end of the distillation ranges lowered by 5 °C.

Alternate Distillation Range for Ultra Low-sulfur Diesel Fuel

| Distillation Range: | Value |
|---|---|
| Initial Boiling Point | (166 to 204) °C |
| 10% point, °C | (199 to 238) °C |
| 50% point, °C | (238 to 282) °C |
| 90% point, °C | (288 to 332) °C |
| End point, °C | (316 to 366) °C |

**9. Subpart I Oxygenated Fuels**

Subpart I describes special procedures for measuring certain hydrocarbons whenever oxygenated fuels are used. We updated the calculations for these procedures in Subpart G. This subpart is relatively short, and we did not make many changes to its original content. We request comment on whether or not we should provide additional guidance for testing with oxygenated fuels.

**10. Subpart J Field Testing**

Although Subpart J Field Testing existed prior to this proposal, we are proposing many changes to this subpart. We are proposing that in general, field testing equipment and measurement instruments meet the same specifications and performance checks that laboratory instruments meet. However, for field testing instruments, we propose to allow certain deviations from the laboratory specifications. We propose a procedure for preparing and conducting a field test, and we propose additional drift and noise allowances for emission analyzers.

**11. Subpart K Definitions, References, and Symbols**

In Subpart K we propose some new and revised definitions of vocabulary that we frequently use in part 1065. For example we have revised our definitions of "brake power", "constant-speed engine", and "aftertreatment" to provide more clarity, and we have added new definitions for things such as "300 series stainless steel", "barometric pressure", and "operator demand". We also propose a thorough and consistent set of symbols, abbreviations, and acronyms. We propose to update our references to include references of the National Institute of Standards and Technology and the International Organization for Standardization (ISO).

**II. Technical Amendments**

**A. Definitions and Penalties**

We are proposing to revise several definitions that apply over more than one part of our regulations. These changes are designed to harmonize our regulations.

We are proposing to change the definition of Marine engine and Marine vessel to harmonize our approach to amphibious vehicles and clarify other issues. We have treated amphibious vehicles differently whether they had a diesel engine or a spark-ignition engine. We are proposing to harmonize our treatment of amphibious vehicles by consistently treating these as land-based products. We are also adding a provision defining amphibious vehicles are those that are designed primarily for operation on land to clarify that we don't consider hovercraft to be amphibious vehicles. See the Technical Support Document for additional information related to these definitions. In particular, note that we describe our interpretation of what it means for an engine to be "installed in a marine vessel." Manufacturers have raised several questions related to this issue, especially as it relates to portable engines installed on barges.

We are also considering changes to the definition for Spark-ignition and Compression-ignition. We define Compression-ignition as relating to reciprocating internal-combustion engines that are not spark-ignition engines. We limit these definitions to reciprocating engines to avoid including gas turbines under the definition of Compression-ignition. We currently do not have emission standards for gas turbines. A question has come up

regarding how we should treat rotary engines, such as the Wankel engine. We request comment regarding whether the definition of Compression ignition should refer to "reciprocating and rotary engines" to clarify that rotary engines not meeting the definition for Spark-ignition engines would fall under our provisions for compression ignition engines.

We currently define Spark-ignition as follows:

> Spark-ignition means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark-ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

This definition has left some confusion regarding natural gas engines that have a throttle, but perhaps do not clearly have operating characteristics that are significantly similar to the theoretical Otto combustion cycle. As an alternative, we are considering the following definition to remove this ambiguity:

> Spark-ignition means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device). Engines that use diesel fuel are not spark-ignition engines.

Such a simple approach would be very clear, but could have the effect of defining some natural gas engines that have operating characteristics that are significantly similar to the theoretical diesel combustion cycle as spark-ignition engines. This may be appropriate, but it would represent a change from our existing policy for these engines. We are also considering another definition, as follows:

> Spark-ignition means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics similar to the theoretical Otto combustion cycle. Spark-ignition engines usually burn a premixed charge of air and fuel. Engines that use diesel fuel are not spark-ignition engines.

This definition aims for consistency with the existing policy, but focuses on premixed combustion instead of the throttle to indicate whether natural gas engines are more appropriately regulated as compression-ignition or spark-ignition engines.

We welcome comment on all of these possible definitions of spark-ignition, as well as other possible approaches to this definition.

The Clean Air Act specifies maximum penalty amounts corresponding to each prohibited Act. These maximum penalty amounts are periodically adjusted for inflation, based on the provisions of the Debt Collection Improvement Act. These maximum penalties have been updated under 40 CFR part 19. The new maximum penalties are $32,500 for introducing noncompliant engines into commerce for manufacturers guilty of tampering, and $2,750 for non-manufacturers guilty of tampering. In addition, the maximum penalty we can recover using administrative procedures is $270,000. We are proposing to extend these revised penalties into each of our emission-control programs.

**B. Nonroad general compliance provisions (40 CFR part 1068)**

In addition to the changing test procedures described above, we are proposing or considering changes that would affect multiple engine categories.

We are proposing several amendments to the provisions of 40 CFR part 1068, which currently apply to land-based nonroad diesel engines, recreational vehicles, and nonroad spark-ignition engines over 19 kW. We encourage manufacturers of other engines to take note of these changes, since we intend eventually to apply the provisions of part 1068 to all engines subject to EPA emission standards. Note that we are not requesting comment on the whole range of provisions in part 1068, but rather on those items that are included in this proposal. These changes include the following:

- §1068.10: Clarify confidentiality provisions to address how we treat information that we collect from on-site visits or testing, as opposed to information that manufacturers send to us.
- §1068.30: Add or correct definitions to coordinate with the standard-setting parts and clarify various terms.
- §1068.105: Expand paragraph (a) to better explain requirements for equipment manufacturers to use current model-year engines. This relates especially to the existing provision that allows equipment manufacturers to use up their normal inventories of engines from previous model years in cases where a new emission standard takes effect. We propose to change §1068.101(a)(1) to reflect these changes.
- §1068.110: Clarify that the manufacturers' warranty obligation includes all expenses related to diagnosing and repairing or replacing emission-related parts.
- §1068.115: Add text to paragraph (a) to provide a complete list of reasons for manufacturers to deny warranty claims. This clarifies that the list of reasons given in paragraph (b) is descriptive, and is not intended to be comprehensive.
- §1068.245: Clarify that manufacturers applying for hardship must use the provisions of §1068.250 (if applicable) before applying for hardship under §1068.245. This is necessary to remove the ambiguity resulting from the current approach, which specifies that both §§1064.245 and 1068.250 are provisions of last resort.
- §1068.260: Clarify that including the cost of separately shipped components means that the cost of shipping must also be addressed.
- §1068.265: Add provisions that clarify what manufacturers must do when they are required to meet emission standards for engines that are not certified. A typical example would be an exemption that applies to new engines that replace an old engine that was certified to emission standards. We already require these engines to have the same degree of emission control as the replaced engine. We do not want manufacturers to certify these engines, but we are proposing to add requirements to clarify how manufacturers can show that the new engines meet an older set of emission standards. This involves either using an engine that is the same as one that was certified in an earlier model year, or performing tests to show that the engines meet the specified emission levels. In any case, manufacturers would not need to go through the process or pay the fees associated with certification. We recently adopted these same provisions for nonroad diesel engines and are proposing to extend them to the other engine categories covered by part 1068.
- §1068.315: Reduce the ownership requirement for the identical configuration exemption from one year to

six months; also, change the qualifying criterion from "the same as" to "identical to."

- §1068.410: Add provisions allowing manufacturers to test engines up to three times total if an engine family reaches a fail decision under selective enforcement auditing, consistent with the provisions that apply under most of our programs.
- §1068.510: Clarify that manufacturers must describe the qualifications of repair personnel, rather than simply stating that they are qualified.

**C. Land-based nonroad diesel engines (40 CFR parts 89 and 1039)**

We recently adopted a new tier of emission standards for nonroad diesel engines, codifying these standards in 40 CFR part 1039. This rulemaking led us to make several regulatory changes to the existing tiers of standards for these engines in 40 CFR part 89. In cases where we discovered the need for changes after publishing the proposed rule, but we did not make those changes to part 89 in the final rule out of concern that the public had not had an opportunity for comment. Similarly, we are proposing some adjustments to part 1039, based on information that surfaced late in that rulemaking. We are proposing the following changes in part 89 and part 1039:

- §89.102: Add the provisions from the Tier 4 final rule related to additional allowances under the equipment-manufacturers flexibility program for technical hardship.
- §89.102: Clarify that equipment manufacturers using allowances under this section may use lower-emitting engines than we currently require.
- §89.110: Allow manufacturers to identify a different company's name and trademark on the emission control information label, with additional provisions to ensure that operators take certain steps to ensure that operators have the full benefit of the emission-related warranty.
- §89.130: Refer to the nearly identical provisions for rebuilding engines in §1068.120.
- §89.410: Allow manufacturers to use ramped-modal testing, as specified for engines that must meet the Tier 4 standards.
- Appendix A to subpart F: Correct the ranges of values to address an unintentional gap for sales volumes between 300 and 500.
- §89.603: Clarify that standards applicable to Independent Commercial Importers (ICIs) are those of the year in which the imported engine was originally produced, for up to five engines per year. See the Technical Support Document and the discussion below related to highway engines and vehicles for additional information.
- §§89.913 and 89.914: Allow engine and equipment manufacturers to use the engine-dressing provisions in §§1039.605 and 1039.610.
- §89.1003: Clarify that engine manufacturers may ensure that the replaced engine is destroyed instead of taking possession of it; add a new label requirement for replacement engines that are allowed to meet a less stringent set of standards that are in effect when the replacement engine is built (to address the case where the engine being replaced was subject to emission standards less stringent than the current standards).
- §89.1003: Clarify that violating the requirements to rebuild an engine to its original configuration is considered tampering with respect to the applicable penalties.
- §89.110: Allow manufacturers to identify a different company's name and trademark on the emission

control information label, with additional provisions to ensure that manufacturers take certain steps to ensure that operators have the full benefit of the emission-related warranty.

- §89.1 and §1039.5: Allow manufacturers to include marine auxiliary engines in an engine family certified under part 89 or 1039, subject to certain limitations.
- §1039.1: Clarify that residence-time limits do not apply to engines used in stationary applications if they have been certified to nonroad emission standards.
- §1039.104, 1039.625, and 1039.655: Change cross-reference from §1039.260 to §1068.265.
- §1039.125: Clarify that a manufacturer's obligation to pay for scheduled maintenance under certain situations is limited to the useful life of the engine.
- §1039.225: Include a modified FEL as the basis for a change to the application for certification, consistent with current practice.
- §1039.240: Adding section references that were inadvertently omitted.
- §1039.510: Remove provisions that are covered by part 1065.
- §1039.605 and §1039.610: Clarify the ABT responsibilities relative to engines or vehicles that are certified under the motor-vehicle program and used in nonroad applications.
- §1039.705: Add a constraint for averaging, banking, and trading to prevent manufacturers from including credits earned in California if there would ever be a situation where they are required to meet separate standards in California (or another state).
- §1039.740: Correct the provisions allowing the use of emission credits to from previous tiers of emission standards to include an item that was inadvertently omitted from the Tier 4 final rule, as described in the preamble to that final rule.
- §1039.801: Update various definitions to reflect the change to move the full text of these definitions to part 1068.

In the Tier 4 final rule, we adopted a revised provision allowing manufacturers to request a useful life shorter than that specified for engines generally. Our recent experience with a similar provision for marine diesel engines has shown that it can be difficult to implement. The main difficulty relates to the extent and quality of the information manufacturers must supply to establish an alternate useful-life period. As a result, we are interested in changing this provision. A similar provision has been in place in part 89 since the beginning of emission standards, but we are not aware of anyone requesting a shorter useful life for any particular application. In the similar consideration of this provision for nonroad spark-ignition engines, the only manufacturers that we would expect to consider a shorter useful life would be for engines used in concrete saws, concrete pumps or similar severe-duty applications. To establish a shorter useful life for a set of engines, manufacturers would need to establish a separate engine family and pay the associated fees for certification. It is not clear that any manufacturer of nonroad diesel engines would make the extra effort or face the extra expense of segregating a family for a shorter useful life. We therefore request comment on removing this provision. We also request comment on the approach under consideration for spark-ignition engines, namely to remove the current approach of requesting a shorter useful life and replacing it with a useful life of 1500 hours for engines used in concrete saws, concrete pumps, and similar severe-duty engines. The useful life in years would be the same for all engines.

During the Tier 4 rulemaking, equipment manufacturers raised a concern regarding diesel engines certified to

meet Tier 4 standards based on the use of catalyst technology relying on ultra low-sulfur fuel, where those engines are exported to countries with a higher sulfur content in diesel fuel. Many pieces of equipment may be designed and manufacturered for the U.S. domestic market and eventually sold to an end-user that may use the equipment outside of the United States. The resulting damage to the emission-control system after extended exposure to the higher sulfur fuel could permanently reduce the effectiveness of emission controls. One possible solution would be to require that engines exported from the United States have the engine label and the aftertreatment removed before shipping the engine. This in effect invalidates the engine's certification, which would make it illegal to continue to use the engine in the United States, or to later import the engine back into the United States. Two potential drawbacks include reconciling the total balance of emission credits under the averaging, banking, and trading program and reconciling the use of the engine in an existing flexibility program. Alternatively, we could require tracking engines and documenting end-use status once it has been placed in equipment. We seek comment on the use of such a provision to prevent re-importation of engines that are exposed to fuel sulfur levels that would be considered tampering if it occurred in the United States.

**D. Marine diesel engines (40 CFR part 94)**

We are proposing several changes to our diesel marine engine program, in 40 CFR part 94. These changes are intended to clarify several aspects of the program. These changes, which are described in more detail in the Technical Support Document, are as follows:

- §94.2: Modify the definitions of "marine engine" and "marine vessel" and add a new definition of "amphibious vehicle" to clarify what kinds of amphibious vehicles are not considered marine vessels; modify the definition of "United States" to remove the reference to the Trust Territories of the Pacific Islands.
- §94.904: Allow the sale of an exempted or excluded engine if it is certified or identical to a certified engine.
- §94.907: Allow vessel manufacturers to take advantage of the engine dresser provisions; clarify the reporting requirement to specify that the total number of dressed engines produced by all companies dressing that base engine for use in a marine vessel is less than 50 percent of total annual sales for the base engine; add language clarifying the requirements related to generating and using emission credits with these engines.
- §94.912: Exempt marine auxiliary engines from the part 94 requirements as long as they are included in an engine family certified under part 1039 or 89, subject to certain limitations.
- §94.1001: Revise applicability to clarify that the provisions in Subpart K apply to manufacturers, owners, and operators of marine vessels that contain engines with per-cylinder displacement of at least 2.5 liters.
- §94.1103: Clarify that the engine manufacturer may ensure that the replaced engine is destroyed instead of taking possession of it; add a new label requirement for replacement engines that are allowed to meet a less stringent set of standards than are in effect when the replacement engine is built (to address the case where the engine being replaced was subject to less stringent emission standards).

The Technical Support Document also clarifies the conditions under which an auxiliary engines used on a

marine vessel will be considered a marine auxiliary engine and be subject to 40 CFR 94.

**E. Small nonroad spark-ignition engines (40 CFR part 90)**

We are proposing to add a section to 40 CFR part 90 to better define the responsibilities for manufacturers choosing to certify their engines below 19 kW to the emission standards for Large SI engines in 40 CFR part 1048.

We have adopted a new approach to define maximum engine power in 40 CFR part 1039 for nonroad diesel engines for purposes of defining the applicability of standards. This definition includes a detailed procedure for determining this value. The current approach for Small SI engines is to rely on a definition of "gross power" that describes generally how to characterize an engine's maximum power. We request comment on adopting the new definition of maximum engine power in 40 CFR part 90. This would have the advantage of harmonizing our treatment of this basic tool to characterize engines and would allow for consistent treatment across programs. See the Technical Support Document for more information.

In addition, we are updating current references to test procedures in 40 CFR part 86 by pointing instead to 40 CFR part 1065. Manufacturers are also encouraged to review the proposed provisions in 40 CFR part 1065, since we intend eventually to apply those same procedures to Small SI engines.

**F. Marine spark-ignition engines (40 CFR part 91)**

We are proposing only minimal changes for marine SI engines in 40 CFR part 91. These changes are primarily to update current references to test procedures in 40 CFR part 86 by pointing instead to 40 CFR part 1065. We are also updating various definitions, as described in Section II.A. Manufacturers are also encouraged to review the proposed provisions in 40 CFR part 1065, since we intend eventually to apply those same procedures to marine SI engines.

**G. Large nonroad spark-ignition engines (40 CFR part 1048)**

We adopted emission standards for nonroad spark-ignition engines over 19 kW in November 2002 (67 FR 68242). The regulations in 40 CFR part 1048 were our first attempt to draft emission-control regulations in plain-language format. In the recent final rule for nonroad diesel engines, we went through a similar process, including extensive interaction with a different set of manufacturers. This process led us adopt regulatory provisions in 40 CFR part 1039 that differ somewhat from those in part 1048. Since the process of meeting standards, applying for certificates, and complying with other emission-related requirements has a lot of commonality across programs, we have a strong interest in adopting consistent provisions and uniform terminology where possible. As a result, we are proposing extensive changes in part 1048 to align with the regulations in part 1039. Many of these changes reflect minor wording differences. The more significant changes to part 1048 include the following:

- §1048.105: Exclude marine fuel tanks from the standards for evaporative emissions. This is appropriate, because the fuel-hose requirements are incompatible with Coast Guard requirements and because we are developing a separate emission-control program that would apply to all fuel tanks associated with marine

spark-ignition engines.

- §1048.135: Add a requirement for manufacturers to supply duplicate labels. This corresponds with the recently adopted provisions of 40 CFR 1068.105(c) that ensure that equipment manufacturers will take steps to prevent the misuse of duplicate labels.
- §1048.135: Allow manufacturers to identify a different company's name and trademark on the emission control information label, with additional provisions to ensure that manufacturers take certain steps to ensure that operators have the full benefit of the emission-related warranty.
- §1048.145: Add detailed provisions to the family-banking provisions to better define the qualifying criteria and the process for using this provision. For example, we establish a date by which manufacturers must begin production of early-compliant engines to avoid giving credits for marginal early production, we clarify that the late-complying engines must continue to meet the Tier 1 standards, and we add a requirement that manufacturers report the number of engines they produce under this provision to allow us to verify compliance.
- §1048.310: Clarify that the maximum testing rate of 1 percent for production-line testing applies only after testing the minimum number of engines specified.
- §1048.501: Allow an optional procedure for measuring diurnal emissions from plastic fuel tanks. This addresses the fact that we intended to control diurnal emissions from fuel tanks, not permeation emissions. This will have minimal environmental impact, since plastic fuel tanks are rarely used with industrial spark-ignition engines. While we may consider adding permeation controls in the future, we are proposing to adopt procedures that would not require no upgrades to plastic fuel tanks at this time.
- §1048.505: Allow manufacturers to use ramped-modal testing for simplified measurement of steady-state emission results. See the Technical Support Document for additional discussion or ramped-modal testing.

For discussion of additional changes, see the Technical Support Document.

In the November 2002 final rule, we adopted a provision allowing manufacturers to request a useful life shorter than that specified for engines generally. Our recent experience with a similar provision for marine diesel engines has shown that it can be difficult to implement. The main difficulty relates to the extent and quality of the information manufacturers must supply to establish an alternate useful-life period. As a result, we are interested in changing this provision. As far as we are aware, the only manufacturers that might reasonably consider a shorter useful life would be for engines used in severe-duty applications. To establish a shorter useful life for a set of engines, manufacturers would need to establish a separate engine family and pay the associated fees for certification. During the rulemaking, manufacturers of these engines suggested that their engines rarely operate longer than 1500 hours. We therefore request comment on removing the current approach of requesting a shorter useful life and replacing it with a useful life of 1500 hours for severe-duty engines. The useful life in years would be the same for all engines.

**H. Recreational vehicles (40 CFR part 1051)**

We are proposing to make several adjustments and clarifications to the regulations for recreational vehicles in part 1051, including the following:

- Clarify the characteristics for evaporative emission families to include items we inadvertently omitted

from the November 2002 final rule, and make it clearer how evaporative and exhaust emission families relate to each other.

- Clarify the evaporative test procedures regarding steps to seal the fuel tank.
- Define "Fuel lines" to remove uncertainty related to which products are subject to permeation standards.
- Specify a maximum 8-hour time period between refueling and starting the permeation test run and clarify that extending permeation testing from two weeks to four weeks depends on establishing a linear change in emissions based on daily measurements.
- Clarify that youth-model ATVs and off-highway motorcycles count toward meeting the phase-in requirements.
- Remove the ATV FEL cap for carbon monoxide, which was inadverently left in the final regulations.
- Specify that the warranty period may be based on hours of engine operation in addition to odometer readings.
- Allow rounding of Normalized Emission Rates to one decimal place, rather than to the nearest whole number, and adding additional equations for smaller engines.
- Change the minimum useful life for youth-model ATVs and off-highway motorcycles to 5,000 kilometers and 500 hours.
- Allow all ATVs certifying to J1088 to use the raw gas sampling provisions of Part 91 for engine testing through the 2008 model year, which was intended in the November 2002 final rule.
- Allows manufacturers to test engines based on an engine's maximum power if that better represents in-use operation, rather than using the specified procedure to establish maximum test speed.
- Adopt a speed threshold to exclude low-speed all-terrain vehicles from part 1051. For example, low-speed amphibious vehicles not meeting the definition the definition of offroad utility vehicles would be covered by part 90 instead of part 1051.

We adopted emission standards for recreational vehicles in November 2002 (67 FR 68242). The regulations in 40 CFR part 1051 were our first attempt to draft emission-control regulations in plain-language format. In the recent final rule for nonroad diesel engines, we went through a similar process, including extensive interaction with a different set of manufacturers. This process led us to adopt regulatory provisions in 40 CFR part 1039 that differ from those in part 1051. Since the process of meeting standards, applying for certificates, and complying with other emission-related requirements has a lot of commonality across programs, we have a strong interest in adopting consistent provisions and uniform terminology as much as possible. As a result, we are proposing extensive changes in part 1051 to align with the regulations in part 1039. Many of these changes reflect minor wording differences. The more significant changes to part 1051 include the following:

- §1051.135: Allow manufacturers to identify a different company's name and trademark on the emission control information label, with additional provisions to ensure that operators take certain steps to ensure that operators have the full benefit of the emission-related warranty.
- §1051.135: Add a requirement for manufacturers to supply duplicate labels. This corresponds with the recently adopted provisions of 40 CFR 1068.105(c) that ensure that equipment manufacturers will take steps to prevent the misuse of duplicate labels.
- §1051.135: Add a requirement to include the hang-tag label with normalized emission rates in the

application for certification.

- §1051.225: For situations where the Family Emission Limit changes during a model year, the manufacturer calculates the credit balance for the family based on the FEL that applies for the corresponding production volume. This allows manufacturers to generate more credits (or use fewer credits), but this is consistent with the fact that manufacturers are liable for the emission-control performance of each engine relative to the FEL that applied at the point of production.
- §1051.501: Add "or add" in paragraph (b)(2) to clarify that the addition of fuel would not be allowed after the first weight measurement is taken in the permeation test run.
- §1051.705: Add a constraint for averaging, banking, and trading to prevent manufacturers from including credits earned in California if there would ever be a situation where they are required to meet separate standards in California (or another state).
- §1051.505 and 1051.615: We request comment on adding an option to allow manufacturers to conduct steady-state testing using ramped-modal cycles, as described in the Technical Support Document.

We request comment on all these changes to part 1051.

**I. Locomotives (40 CFR part 92)**

We are proposing a variety of changes for our locomotive regulations in 40 CFR part 92 to make correct various technical references and typographical errors. See the Technical Support Document and the proposed regulations for additional information.

In addition, we are requesting comment on a few additional items. The Engine Manufacturers Association recommended several revisions to the locomotive regulations.[2] We are proposing many of these changes, and are requesting comment on those that we are not proposing. We are especially interested in comments related to EMA's request to revise the accuracy specifications found in §§92.104(b)(1)(i), 92.105(d), 92.106(b)(1)(ii), 92.107(a)(1), and 92.126(b)(3). These comments generally express a concern that the adopted specifications require too much precision or accuracy. We request further comment on the achievable level of precision and accuracy for these specifications, and on the degree to which we should change the specified values.

The standards for locomotive engines currently do not apply to engines used in locomotives if they have a maximum power below 750 kW. These engines are generally designed and manufactured for other applications, so they are excluded from locomotive standards and procedures. We have received a request that we allow engines below 750 kW that are used in locomotives to optionally certify to locomotive standards instead of the otherwise applicable requirements of 40 CFR part 89.[3] This commenter suggested the following addition to the regulations in 40 CFR part 92:

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[2] "Recommended Technical Amendments to EPA Tier 0/1/2 Locomotive Rule," Handout from the Engine Manufacturers Association, October 2003 (Docket #OAR-2004-0017-0002).

[3] "Inclusion of the Railpower Green Goat Hybrid Locomotive 40 CFR 92 Averaging, Trading, and Banking" e-mail from Christopher Weaver, Railpower, May 7, 2004 (Docket #OAR-2004-0017-0003).

The manufacturer or remanufacturer of a vehicle propelled by an engine rated less than 750 kW, but that otherwise meets all the requirements of this definition may elect to have it treated under this part rather than under part 89 by giving written notice of such election to the Administrator. All of the provisions of this part shall apply to vehicles for which such an election is made.

We continue to believe that engines below 750 kW should be regulated as nonroad diesel engines under part 89. However, we request comment on this suggestion to allow manufacturers to optionally meet the standards in part 92 instead. We also request comment regarding the applicability of the line-haul emission standards to these low-power locomotive engines. Finally, we request comment on alternate calculations to address the equivalent tractive horsepower of hybrid locomotives.

**J. Highway engines and vehicles (40 CFR part 86)**

1. Light-duty Vehicles

a. Calculation Method for Nonmethane Hydrocarbons

Text changes are proposed to properly align EPA and CARB calculation methods for measuring nonmethane hydrocarbons from gasoline, diesel, methanol, ethanol, and liquefied petroleum gas fueled light-duty vehicles. Harmonization of EPA and CARB testing and calculation practices, including proper accounting for the methane response of the total hydrocarbon FID, was anticipated when Tier 2 regulations were developed. Modifying the language in 86.121-90(d) and 86.144-94(c)(8)(vi) to explicitly require the use of a measured methane response factor, as opposed to the current CFR text which specifies an assumed methane response factor of 1.0, will align the calculation methods. Calculating nonmethane hydrocarbon using a measured methane response factor is the technically correct calculation and measurement method.

b. Correction to Tier 2 Regulations

On December 6, 2002, we made some minor technical amendments to EPA's Tier 2/Gasoline Sulfur regulations (67 FR 72821, December 6, 2002). However, those actions mistakenly reversed a prior correction to Table S04-2 in § 86.1811-04(c)(6) that was made on February 28, 2000 (65 FR 10598, February 28, 2000). We are now reestablishing the correct version of that table. Specifically, in § 86.1811-04(c)(6), in Table S04-2, the "Notes" entry corresponding with "Bin No. 9"' should read "a b e f g h".

2. Highway Motorcycles

a. Highway Motorcycle Labeling Requirements

On January 15, 2004, we finalized new emission standards for highway motorcycles (69 FR 2398, January 15, 2004). These new standards are implemented in two stages: a "Tier 1" that is effective in the 2006 through 2009 model years, and a "Tier 2" that takes effect starting with the 2010 model year. These standards are generally

harmonized with California emission standards that take effect two years earlier. Under the new standards, Class III motorcycles must comply with a new HC+NOx emission standard on a corporate average basis. This new flexibility allows manufacturers to market motorcycles that produce more pollution than the designated average standard as long as they are balanced out by sales of less-polluting models such that the manufacturers' sales-weighted corporate average remains below the standard. Averaging is also optionally allowed for Class I and II motorcycles.

Since publishing the final rule, however, we realized that the labeling language for highway motorcycles is not helpful in the context of the new averaging standard. The current federal labeling language (see 40 CFR 86.413-78) only requires that a motorcycle label indicate compliance with EPA standards for a given model year. This is all that is needed when there is no uncertainty regarding what the applicable emission standards are. In the context of the type of averaging program we finalized, however, the manufacturers essentially choose their own emission standard (up to a cap) for each engine family. The manufacturer-selected emission standard is known as a "Family Emission Limit," or FEL. For example, a manufacturer with two engine families might market one meeting a standard of 2.2 grams/mile HC+NOx and another one meeting a standard of 0.5 grams/mile HC+NOx. If these are equally-selling engine families, then the manufacturer will meet the required Tier 1 average of 1.4 grams/mile HC+NOx.

In the case described above, a label with only the model year will not provide adequate information regarding the applicable emission standard. Historically both EPA and ARB have required labels that identify the specific applicable FEL for vehicles certified under averaging programs. Therefore, we are amending the labeling requirements with two goals in mind. First, the label must provide sufficient information regarding the applicable emission standard and model year, as well as specific tune-up information. Second, the label requirements should be aligned with ARB to the greatest degree possible to prevent a situation where the manufacturer has to apply two labels to a motorcycle to meet two different sets of requirements. The new labeling language in 40 CFR 86.413-2006 accomplishes both of these goals.

b. Highway Motorcycle Fuel Specifications

In our final rule setting new emission standards for highway motorcycles (69 FR 2398, January 15, 2004) we updated the fuel specifications for motorcycle emission testing to be consistent with the fuel specifications finalized on February 10, 2000, as part of our "Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements" (65 FR 6697, February 10, 2000). This was necessary to ensure that motorcycles are tested using fuels consistent with those available in the marketplace. We received no negative comments on making this change. It is necessary at this time to correct some errors that were made in updating the motorcycle test fuel specification. The specific corrections are:

- Changing the volume percent of aromatics from "35 minimum" to "35 maximum";
- Changing the phosphorous g/liter specification from 0.005 g/liter to 0.0013 g/liter (the alternative specification is 0.005 g/U.S. gallon);
- Changing the sulfur weight percent from 0.08 maximum to 0.008 maximum; and
- Changing the volatility test procedure from "ASTM D 3231" to "ASTM D 323."

3. Heavy-duty highway engines

As discussed above, we are proposing to adopt the lab-testing and field-testing specifications in part 1065 for heavy-duty highway engines, including both diesel and otto-cycle engines. These procedures replace those currently published in subparts D, N, and P in 40 CFR part 86. We are proposing a gradual transition from the part 86 procedures over a period of two model years in order to fully migrate to part 1065, no later than model year 2008. Manufacturers would not need to conduct new testing if they are able to use carryover data, but any new testing for 2008 and later model years would be done using the part 1065 procedures. Migrating heavy-duty highway engines to the part 1065 procedures allows us to include all the testing-related improvements in the HD2007 rule, including those we have adopted through guidance.[4] In addition, part 1065 incorporates revisions based on updated procedures for sampling low concentrations of PM.

We are also proposing to require manufacturers to use ramped-modal testing to show that they meet steady-state emission standards using the Supplemental Emissions Test (SET), which will be required for model year 2007 and later engines. The conventional approach for steady-state testing is to measure emissions separately for each mode. Ramped-modal testing involves a single, continuous emission measurement as the engine operates over the test modes in a defined sequence, including short transition segments between modes. Ramped-modal testing offers several advantages, primarily that of increased accuracy for measuring very low levels of PM emissions. See the Technical Support Document for additional information on the advantages of ramped-modal testing.

Part 1065 bases the denormalized duty cycle on "maximum test speed," which differs somewhat from the traditional approach from part 86 of relying on rated speed. We request comment on whether or not we need to adjust how maximum test speed is applied to heavy-duty highway diesel engines to better represent in-use operation. Specifically, we request comment on whether or not we should specify that maximum test speed should be equal to the 112 % speed from the duty cycle for this particular sequence. This would shift the prescribed speeds that are in excess of 100 % speed to be no greater than 99.92 % of maximum test speed. This adjustment would prevent excessive speeds, while ensuring our intent to specify maximum test speed to test an engine over its complete operating range.

Finally, we are proposing a minor adjustment to the phase-in process for the HD2007 standards to allow manufacturers to make their compliance demonstration either on the basis of model years or calendar years. This increases the flexibility for manufacturers to define their model year without affecting their ability to show that they meet their phase-in obligations. Because the phase-in period is three years under either approach, we believe this adjustment would not harm the environmental objectives of the program.

4. Importation of nonconforming highway engines and vehicles.

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[4] "Guidance Regarding Test Procedures for Heavy-Duty On-Highway and Non-Road Engines, " December 3, 2002 (OAR-2004-0017-xxxx).

The Agency is proposing revisions to 40 CFR part 85, subpart P regarding the applicable emission standards for imported nonconforming highway vehicles and engines, including light-duty vehicles (passenger cars), light-duty trucks, heavy-duty vehicles, heavy-duty engines, and motorcycles. This proposal clarifies that these nonconforming vehicles and engines are required to meet the emission standards in effect when the vehicle or engine was originally produced, not the emission standards in effect when the vehicle or engine is modified. This approach is consistent with the requirements for light-duty Independent Commercial Importers (ICIs) which have been in effect since 1996 (61 FR 5842, February 14, 1996).

Most of the issues related to this proposal were previously addressed in the 1996 rule. An excerpt from that 1996 rule provides the a brief summary of the basis for this proposal. Section I.A of the 1996 final rule reads in part:

> As proposed, EPA is eliminating the requirement that nonconforming light-duty vehicles and Light-duty trucks imported pursuant to 40 CFR 85.1501 or 85.1509 meet the part 86 emission standards in effect at the time of modification. These vehicles, with a few exceptions, will instead be required to meet emission standards (with applicable deterioration factors applied) that were in effect at the time of original vehicle production, using currently applicable testing procedures.
>
> The specific standards applicable to these vehicles are contained in a new §85.1515....
>
> As discussed in the proposal (Supplementary Document pp. 27-28, Docket No. A-89-20), when EPA promulgated the prior requirement to meet standards applicable at the time of modification, the Agency had no data or evidence suggesting that older vehicles could not be modified to meet current year emission standards. Since that rulemaking, EPA has obtained evidence suggesting that many older vehicles cannot be modified to meet current year standards without extraordinary cost, which makes the conversion financially unfeasible for many owners of such vehicles. Today's rule would give owners of older vehicles a way to import their vehicles. In addition, it would have been significantly more difficult and costly for importers to modify vehicles to comply with the current model year standards beginning in January, 1996, when the standards applicable to small volume manufacturers became substantially more stringent. EPA agrees with the statements submitted by ICIs after the close of the comment period that the expense of such modifications would have a serious deleterious effect on their businesses and would not justify the costs.

Although the intent of the 1996 rule was clear, we are proposing to make regulation changes to make the regulation language consistent with the intent of the 1996 rule. The 1996 final rule added 40 CFR 85.1515, which provided a list of the emission standards applicable to imported light-duty vehicles and light-duty trucks based on the original production (OP) year of the vehicle. Tables 1 and 2 in 40 CFR 85.1515 correctly indicate that the emission standards applicable for pre-1994 imported light-duty vehicles and light-duty trucks are based on the original production year of the vehicle. Tables 1 and 2 also correctly indicate (in a footnote) that 1994 and later imported light-duty vehicles and light-duty trucks are required to meet the applicable emission standards as "Specified in 40 CFR part 86 for the OP year of the vehicle, per 85.1515(c)." However §85.1515(c)(1) incorrectly indicates that "Nonconforming motor vehicles or motor vehicle engines of 1994 OP model year and later conditionally imported pursuant to §85.1505 or §85.1509 shall meet all of the emission standards specified in 40 CFR part 86 for the model year in which the motor vehicle or motor vehicle engine <u>is modified</u>." (emphasis added)

This ambiguity in the regulations was unfortunately not corrected after the 1996 rule changes became effective. Nor was it corrected when Interim non-Tier 2 and Tier 2 requirements were adopted for import vehicles (65 FR 6698, February 10, 2000). Although the 2000 rulemaking did not intend to change the highway engine or vehicle importation process, the regulations continued to indicate that nonconforming motor vehicles and motor vehicle engines must meet the emission standards in the model year in which the motor vehicle or motor vehicle engine is modified; see 40 CFR 85.1515(c)(2)(ii) through (d). We have now received several petitions from light duty ICIs to

correct the regulations to permit vehicles imported by ICIs to meet OP year standards.

In summary, for the reasons discussed in the provisions of 61 FR 5842, February 14, 1996, we are proposing changes to correct the regulations for nonconforming highway vehicles so they are consistent with the intent of the 1996 final rule. This proposal will require imported highway vehicles to meet the emission standards in effect the year the vehicle was originally produced, not the emission standards in effect in the year the vehicle or engine is modified. We are, however, concerned that ICI provisions which apply OP year standards could be used as a way to circumvent our Tier 2 light duty standards and our new more stringent motorcycle standards. Thus we are proposing to cap each ICI's annual production of vehicles meeting OP year standards when OP year standards are less stringent than the standards that apply during the year of modification. We are proposing a cap of a total of 50 light duty vehicles and trucks and 50 motorcycles. This does not impact the number of vehicles an ICI may produce that are certified to the standards that apply during the year of modification.

While we have never had an ICI for highway HDEs, we are also proposing, consistent with the above, to make clear that the applicable standards for HDEs imported by an ICI would be those of the year of original production. For HDEs, we are proposing an annual cap of five on an ICI's production of engines certified to OP year standards that are less stringent than those that apply during the year of modification. This will address the possibility that ICIs could provide an avenue by which truck purchasers could avoid the additional costs of new trucks with engines meeting aftertreatment-based engine standards. We are proposing a similar amendment for nonroad diesel engines, as described elsewhere in this document.

We believe it is appropriate to have different caps on the quantity of vehicles and engines that can be certified to OP year standards, where OP year standards are less stringent than those that apply during the year of modification. The sales of light-duty vehicles and trucks are many times greater than those of heavy-duty highway engines and nonroad diesel engines combined. Further, we believe that the caps for light-duty vehicles light-duty trucks, and motorcycles should be larger than those for nonroad and highway engines to accommodate an industry that has grown up around the light-duty ICI program. The light-duty and motorcycle ICIs can provide additional consumer choice and also provide an avenue by which (for a price) someone who has lived outside of the United States, including returning U.S. military personnel, can bring a used personal vehicle they acquired overseas into conformity with U.S. emission requirements. No such ICI industry exists for highway or nonroad engines. Where OP year standards are applied to highway and nonroad engines, we are proposing a lower cap. We believe it will be appropriate to limit the activities of engine ICIs, when previous model year engines are involved, to those specialized trucks or pieces of equipment for which demand is so low that normal certification didn't occur or might not occur. While we want to provide an opportunity for the importation of highly specialized vehicles or equipment that might otherwise be unavailable in the United States, we do not want to develop an industry that simply provides older equipment that would most likely be built with engines meeting significantly less stringent standards.

**III. Public Participation**

We request comment on all aspects of this proposal. This section describes how you can participate in this process.

**A. How and to Whom Do I Submit Comments?**

**B. Will There Be a Public Hearing?**

If you would like a public hearing in addition to the planned workshop, contact us by August 13, 2004 as described above in "DATES" If a public hearing is requested, we will hold it on September 13, 2004 starting at 9:00 am EDT. Contact us for updated information about the possibility of a public hearing.

If you would like to present testimony at a public hearing, we ask that you notify the contact person listed above at least ten days beforehand. You should estimate the time you will need for your presentation and identify any needed audio/visual equipment. We suggest that you bring copies of your statement or other material for the EPA panel and the audience. It would also be helpful if you send us a copy of your statement or other materials before the hearing.

We will arrange for a written transcript of the hearing and keep the official record of the hearing open for 30 days to allow you to submit supplementary information. You may make arrangements for copies of the transcript directly with the court reporter.

**C. Comment Period**

The comment period for this rule will end on **October 15, 2004**.

**IV. Statutory and Executive Order Reviews**

**A. Executive Order 12866: Regulatory Planning and Review**

Under Executive Order 12866 the Agency must determine whether the regulatory action is "significant" and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of this Executive Order. The Executive Order defines a "significant regulatory action" as any regulatory action that is likely to result in a rule that may:

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, Local, or Tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Because the rule merely revises the measurement methods and makes a variety of technical amendments to existing programs, it is not a significant regulatory action and is not subject to the requirements of Executive Order 12866. Any new costs associated with this rule will be minimal. In addition, some of the changes will substantially reduce the burden associated with testing, as described in the Regulatory Support Document.

**B. Paperwork Reduction Act**

This rule does not include any new collection requirements, as it merely revises the measurement methods and makes a variety of technical amendments to existing programs.

**C. Regulatory Flexibility Act**

We have determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this rule. We have also determined that this rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impacts of this final rule on small entities, a small entity is defined as: (1) A small business that meet the definition for business based on SBA size standards; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. This rule merely revises the measurement methods and makes a variety of technical amendments to existing programs.

**D. Unfunded Mandates Reform Act**

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

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

This rule contains no federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule imposes no enforceable duties on any of these governmental entities. Nothing in the rule would significantly or uniquely affect small governments. We have determined that this rule contains no federal mandates that may result in expenditures of more than $100 million to the private sector in any single year. This rule merely revises the measurement methods and makes a variety of technical amendments to existing programs. The requirements of UMRA therefore do not apply to this action.

**E. Executive Order 13132: Federalism**

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

Section 4 of the Executive Order contains additional requirements for rules that preempt State or local law, even if those rules do not have federalism implications (i.e., the rules will not have substantial direct effects on the States, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government). Those requirements include providing all affected State and local officials notice and an opportunity for appropriate participation in the development of the regulation. If the preemption is not based on express or implied statutory authority, EPA also must consult, to the extent practicable, with appropriate State and local officials regarding the conflict between State law and Federally protected interests within the agency's area of regulatory responsibility.

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

**F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments**

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

This rule does not have tribal implications as specified in Executive Order 13175. This rule will be implemented at the Federal level and impose compliance costs only on engine manufacturers and ship builders. Tribal governments will be affected only to the extent they purchase and use equipment with regulated engines. Thus, Executive Order 13175 does not apply to this rule.

**G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks**

Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR

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

This proposed rule is not subject to the Executive Order because it does not involve decisions on environmental health or safety risks that may disproportionately affect children.

**H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use**

This rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant effect on the supply, distribution, or use of energy.

**I. National Technology Transfer Advancement Act**

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rule involves technical standards. The International Organization for Standardization (ISO) has a voluntary consensus standard that can be used to test engines. However, the test procedures in this proposal reflect a level of development that goes substantially beyond the ISO or other published procedures. The proposed procedures incorporate new specifications for transient emission measurements, measuring PM emissions at very low levels, measuring emissions using field-testing procedures. The procedures we adopt in this rule will form the working template for ISO and national and state governments to define test procedures for measuring engine emissions. As such, we have worked extensively with the representatives of other governments, testing organizations, and the affected industries.

EPA welcomes comments on this aspect of the proposed rulemaking.

**V. Statutory Provisions and Legal Authority**

Statutory authority for the engine controls proposed today can be found in 42 U.S.C. 7401 - 7671q.

List of Subjects

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.

40 CFR Part 89

Environmental protection, Administrative practice and procedure, Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Vessels, Warranties.

40 CFR Part 90

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Labeling, Reporting and recordkeeping requirements, Research, Warranties.

40 CFR Part 91

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Labeling, Penalties, Reporting and recordkeeping requirements, Warranties

40 CFR Part 92

Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Labeling, Railroads, Reporting and recordkeeping requirements, Warranties

40 CFR Part 94

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Incorporation by reference, Penalties, Reporting and recordkeeping requirements, Vessels, Warranties.

40 CFR Part 1039, 1048, and 1051

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Incorporation by reference, Labeling, Penalties, Reporting and recordkeeping requirements, Warranties.

40 CFR Part 1065

Environmental protection, Administrative practice and procedure, Incorporation by reference, Reporting and recordkeeping requirements, Research.

40 CFR Part 1068

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

Dated:

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Michael Leavitt
Administrator.