



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 85, 86, 1036, 1037, 1039, 1042, 1048, 1054, 1065, 1066, 1068

[EPA-HQ-OAR-2012-0102; FRL 9772-2]

RIN 2060-AR48

Heavy-Duty Engine and Vehicle, and Nonroad Technical Amendments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed rulemaking.

SUMMARY: EPA is proposing to amend provisions in the Medium- and Heavy-Duty Greenhouse Gas Emissions and Fuel Efficiency final rule issued on September 15, 2011. These proposed amendments would eliminate duplicative reporting requirements, reduce inadvertent minor differences between the EPA and NHTSA programs regarding such matters as voluntary early model year compliance, better align testing procedures to market realities, and reduce unnecessary testing burdens. EPA is also proposing to amend several regulations by: adjusting the provisions of the replacement engine exemption; expanding EPA's discretion to allow greater flexibility under the Transition Program for Equipment Manufacturers related to the Tier 4 standards for nonroad diesel engines; specifying multiple versions of the applicable SAE standard for demonstrating that fuel lines for nonroad spark-ignition engines above 19 kilowatts meet permeation requirements; and allowing for the use of the ethanol-based test fuel specified by the California Air Resources Board for nonroad spark-ignition engines at or below 19 kilowatts. Some of the individual provisions of this action may have minor impacts on the costs and emission reductions of the underlying regulatory programs amended in this action, though in most cases these are simple technical amendments. For those

provisions that may have a minor impact on the costs or benefits of the amended regulatory program, any potential impacts would be small and we have not attempted to quantify the potential changes.

DATES: Comments on all aspects of this proposal must be received on or before **[insert date 30 days after publication in the FEDERAL REGISTER]**. See the **SUPPLEMENTARY INFORMATION** section on “Public Participation” for more information about written comments.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2012-0102, by one of the following methods:

- www.regulations.gov: Follow the on-line instructions for submitting comments.
- Email: a-and-r-docket@epa.gov
- Fax: (202) 566-9744
- Mail: Air and Radiation Docket and Information Center, Environmental Protection Agency, Air Docket, Mail-code 28221T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
- Hand Delivery: EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC, Attention Docket ID No. EPA-HQ- OAR-2012-0102. Such deliveries are only accepted during the Docket’s normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-HQ-OAR-2012-0102. See the **SUPPLEMENTARY INFORMATION** section on “Public Participation” for additional instructions on submitting written comments.

Docket: All documents in the docket are listed in the www.regulations.gov index.

Although listed in the index, some information is not publicly available, e.g., information claimed as Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The 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, and the telephone number for the Air Docket is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: Angela Cullen, Environmental Protection Agency, Office of Transportation and Air Quality, Assessment and Standards Division, 2000 Traverwood Drive, Ann Arbor, Michigan 48105; telephone number: 734-214-4419; email address: cullen.angela@epa.gov.

SUPPLEMENTARY INFORMATION

A. Does This Action Apply to Me?

This proposed action would affect companies that manufacture, sell, or import into the United States new heavy-duty engines and new Class 2b through 8 vehicles, including combination tractors, school and transit buses, vocational vehicles such as utility service trucks, as well as $\frac{3}{4}$ -ton and 1-ton pickup trucks and vans. The heavy-duty category incorporates all motor vehicles with a gross vehicle weight rating of 8,500 pounds or greater, and the engines that power them, except for medium-duty passenger

vehicles already covered by the greenhouse gas emissions standards and corporate average fuel economy standards issued for light-duty model year 2012-2016 vehicles (75 FR at 25324, May 7, 2010).

This proposed action also would affect nonroad engine manufacturers.

Regulated categories and entities would include the following:

Category	NAICS Code ^a	Examples of Potentially Affected Entities
Industry	336111	Motor Vehicle Manufacturers, Engine and Truck Manufacturers
	336112	
	333618	
	336120	
Industry	541514	Commercial Importers of Vehicles and Vehicle Components
	811112	
	811198	
Industry	336111	Alternative Fuel Vehicle Converters
	336112	
	422720	
	454312	
	541514	
	541690	
	811198	
	336510	
Industry	811310	Engine Repair, Remanufacture, and Maintenance

Note:

^a North American Industry Classification System (NAICS)

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely covered by this proposed rule. This table lists the types of entities that the agency is aware may be regulated by this proposed action. Other types of entities not listed in the table could also be regulated. To determine whether your activities would be regulated by this proposed action, you should carefully examine the applicability criteria in the referenced regulations. You may direct questions regarding

the applicability of this proposed action to the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. What Should I Consider as I Prepare My Comments?

Direct your comments to Docket ID No. **EPA-HQ-OAR-2012-0102**. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or e-mail. The www.regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

(1) Tips for Preparing Your Comments

When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, Federal Register date and page number).
- Follow directions - The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.
- Explain why you agree or disagree, suggest alternatives, and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified in the **DATES** section above.

(2) How Do I Submit Confidential Business Information?

Do not submit CBI to EPA through www.regulations.gov or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI in a disk or CD ROM that you mail to EPA, 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 claimed as

CBI. In addition to one complete version of the comment that includes 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. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

(3) Will the Agency Consider Late Comments?

EPA will consider all comments received before the close of business on the comment closing date indicated above under **DATES**. To the extent practicable, we will also consider comments received after that date. If interested persons believe that any new information the agency places in the docket affects their comments, they may submit comments after the closing date concerning how the agency should consider that information for the final rule. However, the agency's ability to consider any such late comments in this rulemaking will be limited due to the time frame for issuing the final rule.

If a comment is received too late for us to practicably consider in developing the final rule, we will consider that comment as an informal suggestion for future rulemaking action.

(4) How Can I Read the Comments Submitted by Other People?

You may read the materials placed in the dockets for this document (*e.g.*, the comments submitted in response to this document by other interested persons) at any time by going to <http://www.regulations.gov>. Follow the online instructions for accessing the dockets. You may also read the materials at the EPA Docket Center by going to the street addresses given above under **ADDRESSES**.

I. Direct Final Rule

In addition to this notice of proposed rulemaking, EPA is also publishing a Direct Final Rule (DFR) addressing provisions described in Sections III and IV of this document. We are doing this to expedite the regulatory process to allow the amendments to occur as soon as possible. However, if we receive relevant adverse comment on distinct elements of any of the provisions in this proposal by **[insert date 30 days after publication in the FEDERAL REGISTER]**, we will publish a timely withdrawal in the **Federal Register** indicating which provisions we are withdrawing. Any provisions of the DFR that are not withdrawn will become effective on **[insert date 60 days after publication in the FEDERAL REGISTER]**, notwithstanding adverse comment on any other provision. We will address all public comments in the final rule based on this proposed rule.

As noted above, EPA is publishing the DFR to expedite the regulatory process to allow engine and vehicle certifications and engine replacements to occur as soon as possible according to the clarified regulations. We request that commenters identify in your comments any portions of the proposed action described in Sections II and III below with which you agree and support as proposed, in addition to any comments regarding suggestions for improvement or provisions with which you disagree. In the case of a comment that is otherwise unclear whether it is adverse, EPA would interpret relevant comments calling for more flexibility or less restrictions for engines or vehicles as supportive of the direct final rule. In this way, EPA will be able to adopt those elements of the DFR that are fully supported and most needed today, while considering and addressing any adverse comments received on the proposed rule, in the course of

developing the final rule. See the DFR for the regulatory text associated with this proposal.

Note that Docket Number EPA–HQ– OAR–2012–0102 is being used for both the DFR and this NPRM.

II. Proposed Amendments to the Heavy-Duty Engine and Vehicle Greenhouse Gas Emission Standards Rule

EPA and the National Highway Traffic Safety Administration (NHTSA) developed the first-ever program to reduce greenhouse gas (GHG) emissions and fuel consumption in the heavy-duty (HD) highway vehicle sector. The rulemaking was developed as a single, national program with both EPA and NHTSA promulgating complementary standards that allow manufacturers to build one set of vehicles to comply with both agencies’ regulations. This broad heavy-duty sector – ranging from large pickups to sleeper-cab tractors – together represent the second largest contributor to oil consumption and GHG emissions from the mobile source sector, after light-duty passenger cars and trucks. The final rule was published in the Federal Register on September 15, 2011 (76 FR 57106).

A. Background of the HD GHG and Fuel Efficiency Standards and Amendments

EPA’s GHG standards and NHTSA’s fuel consumption standards apply to manufacturers of the following types of heavy-duty vehicles and their engines:

- Heavy-duty Pickup Trucks and Vans
- Combination Tractors
- Vocational Vehicles

The rules include separate standards for the engines that power combination tractors and vocational vehicles. Certain parts of the program are exclusive to EPA's GHG standards. These include EPA's final hydrofluorocarbon standards to control leakage from air conditioning systems in combination tractors and in pickup trucks and vans. Also exclusive to the EPA rules are standards for nitrous oxide (N₂O) and methane (CH₄) emissions standards that apply to all heavy-duty engines and to pickup trucks and vans.

EPA's final greenhouse gas emission standards for heavy-duty vehicles under the Clean Air Act will begin with model year 2014. NHTSA's final fuel consumption standards under the Energy Independence and Security Act of 2007 will be voluntary in model years 2014 and 2015, becoming mandatory with model year 2016 for most regulatory categories. Both agencies allow manufacturers to comply early in model year 2013 and promote early compliance by providing incentives to do so.

In the final rulemaking, EPA established all-new regulations in 40 CFR parts 1036, 1037, and 1066. EPA also included changes to existing regulations in 40 CFR parts 85, 86, 1039, 1065, and 1068. Similarly, NHTSA modified its existing regulations in 49 CFR parts 523 and 534, and established an all-new regulation in 49 CFR part 535.

After publication of the heavy-duty rule, EPA and NHTSA began an extensive outreach effort to aid in the rule's implementation. For example, EPA and NHTSA held public workshops on November 3, 2011 and August 10, 2012. In the course of these efforts, the agencies received a series of comments on specific aspects of the rules and

prepared question and answer responses.¹ In some cases, it became clear that minor changes to the rules would better clarify the rule's intent, or amend the rule to make it more effective. The amendments proposed in this rule are largely based on these implementation discussions.

The proposed revisions related to the heavy-duty GHG emissions regulations in this proposal are unique to EPA's regulations. Thus, this section is further divided into subsections related to specific parts of the Code of Federal Regulations.

B. Proposed Amendments to the Heavy-Duty GHG Regulations

The following proposed amendments correct minor, technical inconsistencies and add clarifications to the current regulatory text. EPA proposes to amend 40 CFR parts 85, 86, 1036, 1037, 1065, and 1066 to correct typographical errors, clarify test procedures and certification procedures, and correct the regulations to make them consistent with the intent expressed in the preamble to the final rules (76 FR 57106). A comparison of the original and proposed regulatory text is provided in a memorandum to the docket for this rulemaking.²

(1) Proposed Regulatory Changes to 40 CFR Part 1036

EPA proposes to amend portions of the regulations in 40 CFR part 1036, as described below.

¹ See U.S. EPA website at <http://www.epa.gov/otaq/climate/regs-heavy-duty.htm>.

² Hicks, M. and A. Cullen. Memorandum to Docket EPA-HQ-OAR-2012-0102. Heavy-Duty Engine and Vehicle Greenhouse Gas Emissions and Fuel Consumption Regulatory Changes. May 2013.

- Hybrid Testing: §§ 1036.525 and 1036.615 specify requirements for testing hybrid engines and engines with Rankine cycle waste heat recovery. The regulatory text includes references for testing “post-transmission” and “pre-transmission” hybrid systems in these sections. In a pre-transmission hybrid, the energy from both the engine and motor is input into the drive shaft prior to the transmission. In a post-transmission hybrid, the engine energy is input into the drive shaft prior to the transmission, but the motor energy is input into the drive shaft after the transmission. Since post-transmission hybrid architecture is incompatible with engine testing, EPA proposes to remove the reference to post-transmissions systems in the hybrid engine test requirements in 40 CFR part 1036. 40 CFR 1037.525, 1037.550, and 1037.615 include requirements for testing post-transmission hybrids using a vehicle test. EPA anticipates that there would be no impact on manufacturers by the deletion of this text, since the vehicle test procedures set out in the regulations specify how to test post-transmission systems.
- EPA proposes to revise §§ 1036.5, 1036.150, and 1036.615 to address typographical issues to correct regulatory citations within the regulations.
- EPA proposes to correct § 1036.150(g)(2) and (3) to change the assigned additive deterioration factor (DF) for nitrous oxide (N₂O) and methane (CH₄) emissions from 0.02 to 0.020 g/hp-hr to account for the appropriate number of significant digits.

- EPA proposes to amend § 1036.225 to clarify that the CO₂ family emission limit (FEL) is not required on the emission control information (ECI) label according to the provisions in § 1036.135.
- EPA proposes to clarify that the CH₄ and N₂O emission standards apply to all testable configurations in § 1036.205.
- EPA proposes to add a definition of “preliminary approval” to § 1036.801.

(2) Proposed Regulatory Changes to 40 CFR Part 1037

EPA also proposes to revise portions of the regulations in 40 CFR part 1037 to correct technical errors and provide additional clarity in the regulations.

(a) Hybrid Testing

Sections 1037.525, 1037.550, and 1037.615 describe or reference the procedure to be used for testing hybrid vehicles with power take off (PTO) devices on a whole vehicle test. Both pre- and post-transmission hybrid architectures can be used with power take off (PTO) devices. The current rule text states that manufacturers could test post-transmission hybrids on the vehicle test procedure to quantify CO₂ and fuel consumption improvements resulting from running PTO equipment, but inadvertently excluded pre-transmission hybrid architecture from being tested on a vehicle test. Since PTO devices can also be used in hybrid vehicles with pre-transmission architecture, EPA is proposing to amend the language to allow these pre-transmission hybrid vehicles with PTO to be tested on the whole vehicle test procedure.

(b) Advanced Technologies Improvement Factor

Section 1037.615 describes the procedure for measuring CO₂ improvements from vehicles with hybrid and other advanced technologies (such as Rankine engines, electric vehicles and fuel cell vehicles), in order to generate advanced technology credits.³

Section 1037.615 specifies how manufacturers can measure the effectiveness of the advanced system by chassis-testing a vehicle equipped with the advanced system and an equivalent conventional vehicle using the test procedures in 40 CFR part 1037, subpart F.

The effectiveness of the advanced system is calculated by measuring the CO₂ output from chassis tests of the vehicle with the advanced system and an equivalent conventional vehicle, thereby obtaining the relative marginal improvement between the two vehicles (the “improvement factor”). The “benefit” associated with the advanced system is then calculated by multiplying the Greenhouse Gas Emissions Model (GEM) result for the vehicle with advanced technology by the dimensionless improvement factor. The benefit is then converted to advanced technology credits in a model year for each vehicle family within an averaging set.

The final rule specified the procedure for applying an improvement factor in simulating a chassis test with a post-transmission hybrid system for A to B testing (§ 1037.550), but did not allow the improvement factor to be applied to multiple vehicle configurations having the same advanced technology (§ 1037.615). The post-

³ Advanced technology credits may be increased by a 1.5 multiplier and applied to any heavy-duty vehicle or engine subcategory with certain maximum limits applying. See 40 CFR 1036.740, 1037.740 and 49 CFR 535.7(e) for description of advanced technology credit program.

transmission system test procedure specifically allows the application of an improvement factor or test results to multiple vehicle configurations, as long as the values used for the calculations “represent the vehicle configuration with the smallest potential reduction in greenhouse gas emissions as a result of the hybrid capability” and are consistent with good engineering judgment. EPA proposes to amend the regulatory text that describes the measurement of advanced technology improvement to include this specification as well.

EPA proposes to revise § 1037.615 to allow manufacturers to generate advanced technology credits from multiple heavy-duty vehicle configurations within a vehicle family group by testing a single vehicle of that group, provided the vehicle tested has the smallest potential reduction in fuel consumption of the vehicles with advanced technology capability. EPA anticipates that this proposed change may reduce testing and reporting costs for manufacturers while still allowing flexibility in choosing to test additional configurations within the family group. By limiting the use of this testing option to vehicles with the smallest potential reduction in emissions (or fuel consumption), emission reductions would not be compromised.

(c) Optional Certification for Up to Class 6 Spark-Ignition Engine Vehicles

Heavy-duty pickup trucks and vans are pickup trucks and vans with a gross vehicle weight rating between 8,501 pounds and 14,000 pounds (Class 2b through 3 vehicles) manufactured as complete vehicles by a single or final stage manufacturer or manufactured as incomplete vehicles as designated by a manufacturer. Under the GHG rule, these vehicles are certified on a chassis dynamometer test, as opposed to the GEM simulation tool used to certify the vocational and tractor categories. NHTSA’s current

regulations allow Classes 4 and 5 spark-ignition vehicles the option of certifying on a chassis dynamometer test, as those vehicles may have more similar characteristics to a Class 2b-3 pickup or van than they do other vehicles in their class. At the time of the final rule, NHTSA was unaware of any higher class spark ignition vehicles that would be similarly appropriate to test on a chassis dynamometer. EPA's current regulations allow spark-ignition vehicles of all classes the option of certifying on a chassis dynamometer test.⁴

This proposed amendment would align the regulatory texts by closing the current gap between NHTSA and EPA's optional certification provisions. EPA therefore proposes to allow manufacturers of complete or cab-complete vehicles up to and including Class 6 that have spark-ignition engines the option of chassis dynamometer certification. See references in §§ 1037.104 and 1037.150.

(d) Configuration and Subconfiguration Definitions

The existing EPA regulations contain definitions for "configuration" and "subconfiguration," which define how to group vehicles by similar characteristics within a test group when conducting testing to determine CO₂ emissions for heavy-duty pickup trucks and vans. "Configuration" means a subclassification within a test group that is based on engine code, transmission type and gear ratios, final drive ratio and other parameters that EPA designates. Likewise, "subconfiguration" means a unique combination within a vehicle configuration of equivalent test weight, road-load

⁴ See 40 CFR 1037.15(l)

horsepower, and any other operational characteristics or parameters that EPA determines may significantly affect CO₂ emissions within a vehicle configuration.

The current definitions could be specified further according to established principles to prevent any ambiguity for manufacturers in conducting testing for heavy-duty pickup trucks and vans. The terms “transmission type” and “engine code” can be further defined in the definition for “configuration,” to reflect common industry understanding of the terms. In addition, the term “equivalent test weight” could be further defined in the definition for “subconfiguration” to carryover the existing definition included in § 1037.104(d)(11). Therefore, EPA is proposing to add these further details to clarify these terms in § 1037.104(d)(12).

(e) Vocational Tractor Vehicle Families

The regulatory text in 40 CFR 1037.230 related to vocational tractor families is unintentionally ambiguous, and is inconsistent with, the preamble and other regulatory text. In the vocational tractor provisions of § 1037.630(b)(2), EPA requires that tractors “reclassified under this provision must be certified as a separate vehicle family. However, they remain part of the vocational regulatory subcategory and averaging set that applies to their weight class.” Although § 1037.630(b)(2) requires two vocational tractor families dependent on the GVWR of the vehicle, the text in § 1037.230(a)(1) implies only a single vocational tractor family default. This inconsistency is the result of an oversight when provisions were added allowing tractors to certify as vocational vehicles, and it is inconsistent with the way vehicle families are treated throughout the program, where they are split by weight class (76 FR at 57240, September 15, 2011). Therefore, EPA is proposing to revise § 1037.230(a)(1) to be consistent with §

1037.630(b)(2) by splitting the vocational vehicles families into two groups, those above 33,000 pounds GVWR and those above 26,000 pounds GVWR and at or below 33,000 pounds GVWR.

(f) 40 CFR Part 1037 Aerodynamic Assessment

A vehicle's design impacts the amount of power that is required to move the vehicle down the road. Depending on the vehicle speed, two of the largest impacts on GHG emissions and fuel consumption are aerodynamics and tire rolling resistance. As part of the Heavy-Duty GHG and Fuel Efficiency rule, manufacturers are required to meet vehicle-based GHG emissions and fuel efficiency standards. Compliance with the vehicle standard for combination tractors is determined based on a vehicle simulation tool called the Greenhouse Gas Emissions Model (GEM). Various characteristics of the vehicle are measured and these measurements are used as inputs to the model. These characteristics relate to key technologies appropriate for this subcategory of truck—including aerodynamic features, weight reductions, tire rolling resistance, the presence of idle-reducing technology, and vehicle speed limiters. See generally 76 FR 57135.

The aerodynamic drag of a vehicle is determined by the vehicle's coefficient of drag (C_d), frontal area, air density and speed. As noted in the Heavy-Duty GHG and Fuel Efficiency rule, quantifying truck aerodynamics as an input to the GEM presents technical challenges because of the proliferation of vehicle configurations, the lack of a clearly preferable standardized test method, and subtle variations in measured aerodynamic values among various test procedures (76 FR 57148-57151). Class 7 and 8 tractor aerodynamics are currently developed by manufacturers using a range of

techniques, including wind tunnel testing, computational fluid dynamics, and constant speed tests.

We developed a broad approach that allows manufacturers to use these multiple different test procedures to demonstrate aerodynamic performance of the tractor fleet given that no single test procedure is superior in all aspects to other approaches.

Allowing manufacturers to use multiple test procedures and modeling coupled with good engineering judgment to determine aerodynamic performance is consistent with the current approach used in determining representative road load forces for light-duty vehicle testing (40 CFR 86.129-00(e)(1)). However, we also recognize the need for consistency and a level playing field in evaluating aerodynamic performance.

EPA and NHTSA developed a bin structure to group aerodynamic test results for the proposed rulemaking, and adjusted the method used to determine the bins in the final rule. The agencies, while working with industry, developed an approach for the final rulemaking which identified a reference aerodynamic test method and a procedure to align results from other aerodynamic test procedures with the reference method, an enhanced coastdown procedure. Manufacturers are able to use any aerodynamic evaluation method in demonstrating a vehicle's aerodynamic performance as long as the method is aligned to the reference method.

As discussed in the final rule, the agencies adopted aerodynamic technology bins which divide the wide spectrum of tractor aerodynamics into five bins (*i.e.*, categories) for high roof tractors (see 76 FR 57149). The first high roof category, Bin I, is designed to represent tractor bodies that prioritize appearance or special duty capabilities over aerodynamics. These Bin I trucks incorporate few, if any, aerodynamic features and may

have several features that detract from aerodynamics, such as bug deflectors, custom sunshades, B-pillar exhaust stacks, and others. The second high roof aerodynamics category is Bin II, which roughly represents the aerodynamic performance of the average new tractor sold today. The agencies developed this bin to incorporate conventional tractors that capitalize on a generally aerodynamic shape and avoid classic features which increase drag. High roof tractors within Bin III build on the basic aerodynamics of Bin II tractors with added components to reduce drag in the most significant areas on the tractor, such as integral roof fairings, side extending gap reducers, fuel tank fairings, and streamlined grill/hood/mirrors/bumpers, similar to SmartWay trucks today. The Bin IV aerodynamic category for high roof tractors builds upon the Bin III tractor body with additional aerodynamic treatments such as underbody airflow treatment, down exhaust, and lowered ride height, among other technologies. And finally, Bin V tractors incorporate advanced technologies that are currently in the prototype stage of development, such as advanced gap reduction, rearview cameras to replace mirrors, wheel system streamlining, and advanced body designs.

EPA and NHTSA developed the aerodynamic drag area, CdA, bin values for the tractor categories based on coastdown testing conducted by EPA using the enhanced coastdown test procedures adopted for the final HD GHG and Fuel Efficiency rulemaking. EPA tested high roof sleeper cab combination tractors from each of the manufacturers in order to represent the aerodynamic performance that we would expect

from a Bin III vehicle. The test results used for the HD GHG and Fuel Efficiency final rule are included in Table II-1 below.⁵

Table II-1: Tractor CdA Values used in HD GHG Final Rule

Truck	Expected Bin	Source	CdA (m ²)
Class 8 High Roof Sleeper Cab			
B-3JM2-2H-TXCR	Bin III	EPA Test Program	6.4
B-3JM2-4N-TXCR	Bin III-IV	EPA Test Program	5.7
B-3JM2-2K-TXCR	Bin III	EPA Test Program	6.3
C-3JM2-1B-TXCR	Bin III	EPA Test Program	6.2
C-3JE2-1F-TXCR	Bin II-III	EPA Test Program	6.7

As part of EPA's quality checks to the enhanced coastdown test program, EPA supplied OEMs with the coastdown test data for their individual trucks. Through post-rulemaking work with one OEM, EPA found an error in the data attributable to a testing contractor. The contractor had entered the same coastdown run twice into the dataset provided to EPA for one of the trucks tested (one of 20 repeat runs was entered twice). As a result the truck appeared to have a CdA value of 5.7, rather than its actual value of 6.6. As such, the data that should have been used to establish the aerodynamic bins for the high roof sleeper cabs are listed in Table II-2.

⁵ U.S. EPA and NHTSA. Final Rulemaking to Establish Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Regulatory Impact Analysis. August 2011. Page 2-48.

Table II-2: Tractor CdA Values used in this NPRM

Truck	Expected Bin	Source	CdA (m ²)
Class 8 High Roof Sleeper Cab			
B-3JM2-2H-TXCR	Bin III	EPA Test Program	6.4
B-3JM2-4N-TXCR	Bin III	EPA Test Program	6.6
B-3JM2-2K-TXCR	Bin III	EPA Test Program	6.3
C-3JM2-1B-TXCR	Bin III-IV	EPA Test Program	6.2
C-3JE2-1F-TXCR	Bin II-III	EPA Test Program	6.7

Since the coastdown test is an input into the aerodynamic bins, EPA proposes to correct the CdA range for the affected bin levels. The proposed adjustment to the ranges would allow Bin III, which represents a SmartWay truck, to still mean exactly what was intended in the HD GHG and Fuel Efficiency final rule. The proposed Bins IV and V adjustments would require the same level of improvement we expected in the HD GHG and Fuel Efficiency final rule. This proposed amendment is a correction, so will not change the standards or the costs or projected emissions reductions. The HD GHG and Fuel Efficiency rulemaking estimates of technology costs and the resulting aerodynamic efficiency improvements were made separately from the test procedure normalization reflected in the bin tables. Those cost and technical feasibility assessments set the absolute values of the steps in the table, where the testing results of the five tractors in Table II-2 set the range of Bin III against which the rest of the aerodynamic bins are defined. Since EPA is not proposing to change either the technical descriptions of the bins or the estimates of the aerodynamic loss or benefits in moving between bins in the table, EPA is estimating no change in HD GHG and Fuel Efficiency final rulemaking costs or benefits. EPA is also not proposing to change the input into GEM related to each aerodynamic bin; therefore, this proposed change would have no impact on the GHG or on fuel consumption standards.

EPA proposes to make the adjustments shown in Table II-3 to correct the technical error in the coastdown data used in the HD GHG and Fuel Efficiency final rule. The proposed bin value adjustments would be used by manufacturers to certify their vehicles in their 2013 MY and later end of year reports.

Table II-3: Proposed Table in § 1037.520(b)

High-Roof Sleeper Cabs		
If your measured C_{DA} (m^2) is . . .	Then your Bin Level is...	Then your C_D input is . . .
≥ 7.6	Bin I	0.75
6.8-7.5	Bin II	0.68
6.3-6.7	Bin III	0.60
5.6-6.2	Bin IV	0.52
≤ 5.5	Bin V	0.47

(g) Other 40 CFR Part 1037 Proposed Amendments

- **Heavy-Duty Pickup Truck and Van Regulations:** EPA proposes to amend several provisions in §§ 1037.15 and 1037.104 to specify which parts of 40 CFR part 86 apply to these vehicles and to specifically reference portions of 40 CFR part 86 in 40 CFR part 1037. EPA also proposes to revise the language in § 1037.150(a)(2) to make it consistent with the preamble to the final rule, which stipulates that the entire heavy-duty pickup truck and van fleet must be certified to qualify for early credits (see 76 FR 57245). Also, EPA proposes to clarify how heavy-duty pickup truck and van subconfigurations are selected for testing in § 1037.104(d)(9)(i) through (iii). EPA is also proposing to revise § 1037.104(g)(2)(ii), (g)(2)(iv), and (g)(5) to clarify the approach for estimating analytically derived CO₂ emission rates (ADCs).
- **Air Conditioning (A/C) Leakage Provisions:** The MY2017-2025 Light-Duty

GHG and Fuel Economy Rule separated 40 CFR 86.1866 into four sections for clarity. The A/C leakage section moved to 40 CFR 86.1867-12. Thus, EPA proposes to amend § 1037.115 to reflect this change. In addition, EPA proposes to revise § 1037.115 because the procedure for determining the hydrofluorocarbon (HFC) leakage rate for air conditioning systems with alternate refrigerants is already addressed in SAE J2727, which is incorporated by reference in 40 CFR 86.1, and therefore does not need to be included in § 1037.115.

- Labeling clarification: EPA proposes to clarify in § 1037.135 that the emission control label for the vehicle only requires a statement regarding the size of the fuel tank for vehicles that contain an evaporative canister for controlling emissions.
- Typographical fixes: EPA proposes to address the typographical errors in § 1037.135 relative to labeling, § 1037.501 related to the trailer specification, and § 1037.520 which includes a weight reduction explanation.
- EPA proposes to clarify that the general requirements for obtaining a certificate of conformity and EPA's authority to perform confirmatory testing on vehicles, including the vehicles used to determine $F_{\text{alt-aero}}$ (see § 1037.201).
- EPA proposes to revise § 1037.550 to change the nomenclature used for the vehicle speed variable from S to v to be consistent with 40 CFR part 1065. EPA is also proposing to remove the torque control option for testing post-transmission hybrid systems because it causes testing issues when the vehicle is shifting and braking and by removing the torque control mode from the dynamometer control

options it would reduce lab-to-lab variability.

- EPA proposes to clarify the regulatory text in § 1037.620(a)(3) for instances where the secondary manufacturer who would hold the vehicle GHG certificate may be a small business that would be exempted from the GHG regulations.
- EPA proposes to revise § 1037.660 related to the automatic engine shutdown (AES) provisions. § 1037.660(c) currently allows manufacturers to obtain a discounted credit for installing AES systems that expire prior to the end of the vehicle's life based on the ratio of the set point relative to 1,259,000 miles.⁶ EPA is not revising that provision, except to change the regulatory provision numbering from § 1037.660(c) to § 1037.660(c)(1). EPA is not revising that provision. However, similar to the reasons which supported the development of vehicle speed limiter flexibilities, an automatic engine shutdown system could be developed to alleviate other potential concerns that impede its adoption. For example, some amount of idling may be needed for truckers who experience significant ambient temperature excursions that would necessitate extended idling or for idle reduction technologies, such as auxiliary power units, that malfunction and necessitate extended idling. A remedy to these concerns would be to design the AES such that it allows for a predetermined number of hours per year of idling. EPA is proposing to add § 1037.660(c)(2) to appropriately quantify the

⁶ The basis for the lifetime mileage assumption for heavy-duty tractors is discussed in the Regulatory Impact Analysis for the Final Rule on page 2-69. Available in Docket # EPA-HQ-OAR-2010-0162-3634

CO₂ emissions and fuel consumption of a partial AES system by discounting the AES input to GEM. EPA is using an assumption of 1,800 hours as the annual idling time in the calculation, which is consistent with the final rule (76 FR 57154). EPA used 1,800 hours as the annual idling time for sleeper cabs because it reasonably reflects the available range of idling time cited in several studies, as discussed in the preamble to the final rule and in the Final Regulatory Impact Analysis (pages 2-67 and 2-68).⁷ The 1,800 hours of idling was used in the final rule to determine the credit of 5 grams of CO₂ per ton-mile for the use of AES systems (page 2-68 of the Final Regulatory Impact Analysis).

- EPA proposes to add a provision to § 1037.745. This new proposed provision would clarify manufacturers' liability for offsetting debits (or deficit credits) after certifying with emissions above the standards for three years. We want to avoid claims that the statute of limitations starts to apply in the first year of using debits, since this could significantly limit our ability to adequately enforce the requirement. We have generally adopted this approach in other rules that allow debits to be carried forward a given number of model years and are later offset with credits (40 CFR 86.1861-04(e), 86.1864-10(o), and 86.1865-12(k)).
- EPA proposes to add a definition of "preliminary approval" to § 1037.801.

⁷ Regulatory Impact Analysis: Final Rulemaking to Establish Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles. August 2011. Available in Docket # EPA-HQ-OAR-2010-0162-3634.

- EPA proposes to revise the “Regulatory Sub-category” definitions in § 1037.801 to match the definition of “Class” in 40 CFR 1037.801, be consistent with DOT’s Gross Vehicle Weight Rating Classes in Table II of 49 CFR 565.15, and aggregate the heavy-duty pickup truck and van sub-category to match the definition in 49 CFR 535.4.

(3) Proposed Regulatory Changes to 40 CFR Parts 1065 and 1066

EPA proposes to restore text to § 1065.610(c)(3)(i) through (iii) which was inadvertently removed in the final rule for Category 3 marine diesel engines (75 FR 22896, April 30, 2010). This text was most recently published in the final rule adopting standards for locomotive engines and Category 1 and Category 2 marine diesel engines (73 FR 37325, June 30, 2008).

EPA is also proposing to revise portions of the regulations in 40 CFR part 1066 to clarify test procedures. Specifically, we propose to revise § 1066.310(b) to clarify the coastdown process and simplify the anemometer calibration process.

(4) Proposed Regulatory Changes to 40 CFR Part 85

EPA proposes to revise § 85.525 to separate the light-duty and heavy-duty fuel conversion regulations to provide clarity regarding the applicability of the fuel conversion regulations to heavy-duty pickup trucks and vans.

(5) Proposed Regulatory Changes to 40 CFR Part 86

EPA is also proposing to revise portions of the regulations in 40 CFR part 86. First, EPA is revising § 86.010-18(q) to provide a mechanism for engine manufacturers to identify engines which are only suitable for installation in hybrid applications due to the on-board diagnostics (OBD) calibration. Manufacturers who opt to produce a unique

set of engines for hybrid applications will include a compliance statement on the ECI label that states “for use in hybrid applications only.”

Second, EPA proposes to revise portions of § 86.1865-12 to clarify the provisions that specifically apply to the heavy-duty pickup trucks and vans subject to 40 CFR 1037.104.

Third, EPA proposes to remove §§ 86.007-23(n) and 86.1844-01(j), which describe how to report CO₂, N₂O, and CH₄ emissions. There is no need or benefit for manufacturers to submit greenhouse gas emission data in the model years before emission standards apply for those pollutants.

(6) Summary of Proposed Heavy-Duty GHG Amendments

EPA does not expect that these proposed revisions to 40 CFR parts 85, 86, 1036, 1037, 1065, and 1066 would have any adverse cost impact to the manufacturers. There are no testing costs associated with the proposed revisions. There would be no environmental impact associated with this regulatory action because this proposed rulemaking would not change the heavy-duty engine and vehicle greenhouse gas emission standards that manufacturers have to meet; it simply makes some minor amendments to the regulations.

III. Other Technical Amendments

A. Replacement Engines

In 1996, EPA adopted a provision allowing manufacturers in limited circumstances to produce new, exempt engines for replacing failed engines (61 FR 58102, November 12, 1996). With this approach, manufacturers have been able to make new, exempt engines in cases where engines certified to current standards do not have the

physical or performance characteristics needed to power the equipment with the old engine. Without this provision, some equipment owners would have been forced to prematurely scrap otherwise working equipment (sometimes worth millions of dollars), because no engine meeting current emission standards could be adapted for installation in the space occupied by the original engine.

EPA later added language to the replacement engine exemption to address the complications related to producing partially complete engines for replacement purposes, and to address the need to produce and sell replacement engines such that they would be available to operators with a critical need to avoid extended downtime in the case of engine failure (73 FR 59034, October 8, 2008). This expanded approach allowed manufacturers to sell a limited number of new, exempt replacement engines without taking the steps that would otherwise be required to document the need for the exemption and to arrange for the proper disposition of the old engine. Along with this expanded approach, EPA added circumvention language to describe the overall purpose of the replacement engine exemption in an attempt to prevent manufacturers and operators from using exempted engines in ways that were unnecessary and/or detrimental to the environment. In particular, this text states that the provisions § 1068.240 are “intended to allow for replacement of engines that fail prematurely . . .” This language has been interpreted to mean that replacement engines may be used for no other purpose.

Since then, EPA has found that the circumvention language has had some unintended consequences. For example, California has adopted requirements for operators to reduce emissions from in-use equipment, which has led to a desire to install new replacement engines that are cleaner than the old engines. It is often the case that it

is infeasible or impractical to install replacement engines certified to current standards, but suitable replacement engines designed to meet an intermediate level of emission standards are available. The circumvention language may prevent operators in California from achieving overall emission reductions that would result from upgrading their existing equipment with cleaner engines in this manner. It may also be the case that an engine will simply wear out, rather than experiencing premature failure, well before the equipment in which it is installed is at the end of its life. Under the current regulation, an operator under these circumstances would need to install a new engine certified to current standards, or find a used engine, to keep the equipment operating.

EPA continues to believe that new, exempt replacement engines should only be used in cases where a currently certified engine cannot practically be installed to power the old equipment. EPA believes the regulatory language without our description of intent to prevent circumvention serves this purpose without the unintended consequences described above. EPA is therefore proposing to remove the circumvention provisions from the regulations in § 1068.240. EPA expects manufacturers and operators following the regulations to continue to use the exemption provisions appropriately and not for the purpose of circumventing the emission standards. EPA is proposing to add language to explicitly limit this provision to equipment that has been in service 25 years or less (at the point of installation) so that manufacturers and operators do not use this provision to keep in operation older dirtier, equipment beyond the normal lifetime of the equipment, by continually using new engines to replace old engines. EPA has adopted this same restriction for stationary engines under 40 CFR 60.4210(i), except that the maximum equipment age is 15 years. EPA will continue to monitor compliance with the exemption

provisions and will consider any appropriate changes to the regulation in the future to ensure that the exemption is properly used toward this purpose. This proposed 25-year limit would not apply for marine diesel engines, since those engines are subject to separate replacement engine provisions.

The proposed tracked option specified in § 1068.240(b) also includes an additional step to qualify for the replacement engine exemption for equipment not experiencing premature engine failure. In particular, manufacturers would need to make a determination that the replacement engine is designed with the greatest degree of emission control that is available for the particular application. For example, if the engine being replaced was built before the Tier 1 standards started to apply and engines of that size are currently subject to Tier 2 standards, the manufacturer would need to also consider whether it produces any Tier 1 or Tier 2 engines with the appropriate physical and performance characteristics for replacing the old engine. If the manufacturer produces a Tier 1 engine with the appropriate physical and performance characteristics, engines emitting at levels above the Tier 1 standards would not qualify for an exemption. The proposed requirement to use the cleanest available engine fits with the intent of facilitating voluntary incentive programs involving replacement engine upgrades toward the goal of reducing emissions from in-use equipment, but without imposing a requirement that would involve new technology development or impractical equipment design changes. This provision has already been in place for marine diesel engines in § 1042.615. In the case of equipment experiencing premature engine failure, we would continue to apply the simpler requirement that the replacement engine must meet

emission standards that are the same as or better than the standards that apply to the old engine.

EPA is also proposing to adjust the provisions related to the disposition of the old engine in § 1068.240(b). To be re-introduced into U.S. commerce, the old engine must either meet current emission standards or qualify for an exemption as if it were a new engine. The old engine could be re-used as a replacement engine for a different piece of equipment. Under this proposed approach, an engine made from all new parts and an engine built with a used engine block and any mix of new or used additional parts would be treated the same way. For example, the recycled replacement engine would be subject to all the demonstrations and documentation requirements of § 1068.240(b), and it would count toward the allowance to produce a limited number of replacement engines under § 1068.240(c). For engines that are not re-introduced into U.S. commerce, manufacturers must destroy the old engine or confirm that it has been destroyed. These proposed changes would further address the concern expressed in the circumvention language described above; in particular, EPA believes it is necessary to prevent the possibility of these old engines being installed in new equipment.

EPA is also proposing some clarification to the regulations to address questions that have arisen, as well as making the following changes:

- Proposing revision of the labeling requirements to account for the possibility of using a new replacement engine to replace a previously exempted replacement engine. To the extent that the proposed revised label statement differs from that specified by California ARB, we would expect to approve an adjusted statement that allows for a single, 50-state label under § 1068.201(c).

- Proposing to adjust the reporting deadline for untracked replacement engines under § 1068.240(c). This proposed change would allow manufacturers some time after the end of the calendar year to make the determinations and to take the required steps to fulfill the tracking requirements for replacement engines under § 1068.240(b). Any engines for which these steps and determinations are incomplete by the deadline for the report would need to be counted as untracked replacement engines. Further, to account for prevailing practices and typical timelines for replacement engines, we would move back the deadline for this report from February 15 to March 31.
- Proposing to revise § 1068.240(c)(1) to specify that manufacturers may base sales limits for the untracked option on total U.S. production of certified and exempted engines together (including stationary engines).
- Proposing to add language to clarify that § 1068.240(e) applies only for engines produced under a current, valid certificate. An exemption under § 1068.240(b) or (c) would be required to produce an engine that is identical to one that is no longer certified, even if the engine was formerly certified to standards (or a Family Emission Limits) that are at least as stringent as the current standards.
- Proposing clarifications to the provisions in § 1068.240(d) related to partially complete engines also apply for “current-tier” replacement engines exempted under § 1068.240(e).
- Proposing to add a statement to § 1042.615 for marine diesel engines to clarify our pre-determination that certified Tier 4 engines do not have the appropriate physical and performance characteristics for replacing older engines in marine vessels. This policy was established in our June 30, 2008 final rule (see 73 FR 37157).

In addition, we are proposing to revise § 1068.1 to correct two errors regarding the applicability of part 1068. First, we propose to restore highway motorcycles to the list of categories that are not subject to part 1068. This was added, but then inadvertently removed, when we were completing two parallel rulemakings. Second, we are proposing to add a reference to 40 CFR part 85 to identify how part 1068 applies in certain circumstances for heavy-duty highway engines. These proposed changes are intended to clarify and reinforce existing requirements without modifying the underlying programs in any way.

B. Nonroad Diesel Engine Technical Hardship Program

EPA is proposing to amend the nonroad diesel engine technical hardship program to facilitate EPA granting exemptions to address certain hardship circumstances that were not considered when the original 2004 final rule was published. EPA adopted Tier 4 standards for nonroad diesel engines under 40 CFR part 1039 in 2004 (69 FR 38958, June 29, 2004). To meet these standards, engine manufacturers are pursuing development of advanced technologies, including new approaches for exhaust aftertreatment. Equipment manufacturers will need to modify their equipment designs to accommodate these new engine technologies and the corresponding changes to engine operating parameters (such as operating temperatures and heat rejection rates). To provide flexibility for equipment manufacturers in their efforts to respond to these engine design changes, the Tier 4 standards included the Transition Program for Equipment Manufacturers. Flexibilities allowed under this program include delaying compliance with small-volume equipment models for several years or using allowances in the first year to manage the transition to the Tier 4 engines.

The Transition Program for Equipment Manufacturers is intended to allow nonroad equipment manufacturers wide discretion to manage their product development timeline. Equipment manufacturers may comply either based on a percent of their production (generally for high-volume manufacturers, as described in § 1039.625(b)(1)), or based on a maximum number of exempted pieces of equipment (generally for low-volume manufacturers, as described in § 1039.625(b)(2)). At the same time, the regulations include at § 1039.625(m) an acknowledgement that equipment manufacturers might face a wide range of circumstances, including cases where engine manufacturers might be late in providing compliant engines to nonintegrated equipment manufacturers such that the specified allowances are insufficient to avoid a disruption in the equipment manufacturer's production schedule. The technical hardship provision at § 1039.625(m) allows EPA to make a judgment that an equipment manufacturer that buys engines from another company, through no fault of its own, needs additional allowances to manage the transition to Tier 4 products. The regulation specifies a maximum allowance of 150 percent of a manufacturer's annual production (relative to § 1039.625(b)(1)), or a total of 1,100 allowances (relative to § 1039.625(b)(2)). The regulation also provides economic hardship provisions under § 1068.255; however, eligibility depends on manufacturers showing that their solvency is in jeopardy without relief. Economic hardship therefore serves as a flexibility provision of last resort.

As the compliance dates for the Tier 4 standards approach, equipment manufacturers have described several scenarios where the technical hardship provisions are too restrictive to address their circumstances. For example, engine manufacturers have in some cases delayed delivery of Tier 4 engines until six or even twelve months

after the Tier 4 standards start to apply, which could force equipment manufacturers to use up all their allowances under § 1039.625(b) in the first year of the new standards. The maximum number of allowances under § 1039.625(m) would cover a good portion of the second year of the Tier 4 standards, but we have heard how this too is inadequate to allow equipment manufacturers to respond to late deliveries of compliant engines.

As another example where additional flexibility may be warranted, corporate acquisitions can cause equipment manufacturers to find themselves disadvantaged with respect to allowances because two companies have become a single company for purposes of regulatory compliance. Taken to an extreme, the combined company could exceed its allowances under § 1039.625(b) on the day of the merger because each of the separate companies may have used allowances that, taken together, exceed the specified thresholds for a single company. The combined company may apply for technical hardship under § 1039.625(m), but we have seen that this too can provide insufficient relief for equipment manufacturers trying to incorporate Tier 4 engines into their equipment.

In these cases, the maximum allowable relief under § 1039.625(m) is insufficient to allow equipment manufacturers to transition to meeting Tier 4 requirements without disrupting their ability to continue producing their equipment models. There have also been cases where a company would meet the criteria to qualify for consideration for technical hardship under § 1039.625(m) except that the regulation disallows technical hardship relief for all engines above 560 kW and provides only limited relief for engines above 37 kW. The regulation also provides only limited relief for companies that are not small businesses. In these cases, no additional relief is available under § 1039.625(m),

which again leaves equipment manufacturers unable to continue producing their equipment models.

We are proposing to amend the Transition Program for Equipment Manufacturers in three ways to address these concerns. First, we propose to remove the qualifying criteria so that any equipment manufacturer may apply for technical hardship relief under § 1039.625(m) for any size engine, rather than limiting the technical hardship relief to small businesses and to engines within certain power categories. We believe it is more appropriate to rely on our discretion to evaluate each hardship application on its merits rather than automatically precluding hardship relief based on certain characteristics of the engine or the company. If hardship relief is not appropriate because of an engine's power rating or a company's size or financial standing, we would not approve the request.

Second, we propose to remove the maximum number of allowances we can approve under § 1039.625(m), for both percent-of-production (currently 150 percent) and small-volume allowances (currently 1,100 units), and we propose to remove the deadlines for exercising those additional allowances. We have learned that the specified restrictions on hardship allowances are in some cases too limiting to address the legitimate concerns raised by equipment manufacturers. Again, we believe it is most appropriate to resolve issues of extent of relief once an equipment manufacturer has demonstrated that relief is appropriate, rather than limiting it *a priori*. We would not approve a greater number of technical hardship allowances than is needed to meet the established objectives. Finally, we are proposing additional small-volume allowances under § 1039.625(b)(2) and (m)(4), where we may waive the annual limits on the number of allowances instead of or in addition to granting additional hardship allowances. There

may be times when manufacturers only need approval to use up their regular allowances at a faster pace than the regulations currently allow.

An additional concern has come to our attention as it relates to marine engines. Vessel manufacturers may use certified land-based engines in marine vessels as long as the engines are not modified from their certified configuration (see § 1042.605). We adopted this provision with the understanding that, given the additional technological challenges of operating engines in a marine environment, marine standards are set to be no more stringent than land-based standards and are often set at a level somewhat less stringent than the standards that apply to the land-based engines. Vessel manufacturers have used these provisions extensively to access a wide range of engine models that are not available in a certified marine configuration. The part 1039 Tier 4 standards have made this more complicated. The Tier 4 standards for land-based engines are much more stringent than the Tier 3 marine standards, which will continue to apply for many Category 1 engines. Engine distributors supplying product to vessel manufacturers have reported that several engine models will not be available to them in the transition period. In that way, vessel manufacturers are much like nonroad equipment manufacturers, except that the vessels are not actually required to use engines meeting the more stringent standards now or, for engines below 600 kW, in the foreseeable future. It would be a natural solution to use allowances under § 1039.625, but the regulations specifically require that vessel manufacturers may use only *certified* land-based engines under § 1042.605. There is a risk that this gap would significantly limit their ability to continue producing vessels in the near term. We are proposing to address this by revising 40 CFR part 1042 to specifically allow vessel manufacturers to use allowances under § 1039.625

for certain model year 2013 engines installed in marine vessels. This proposed provision would not apply for engines at or below 19 kW, since the land-based and marine standards for those engines are very similar. This proposed provision also would not apply for engines above 600 kW because the dynamic for designing and certifying those high-power engines allows for a greater expectation that they will be certified in a marine configuration. We expect no negative environmental impact because the engines will be meeting the nonroad Tier 3 standards, which will continue to be at least as stringent as the standards that currently apply for marine engines. It is important to note that this is only a temporary measure; once allowances are no longer available under § 1039.625, vessel manufacturers will either need to use Tier 4 land-based engines or find certified Tier 3 marine engines.

There are further minor proposed changes to the regulations to clarify some of the detailed transition provisions for nonroad diesel engines, as follows:

- Proposing to revise § 1039.104(g) to remove the limitations on the number of engines using the specified alternate FEL caps. Manufacturers have pointed out that this expanded flexibility would address the same concerns as described in this section for transitioning to the Tier 4 standards, but there would be no net environmental impact since manufacturers would need to produce low-emission engines that generate emission credits to offset the additional credits used by transition engines certified to with higher FELs. We are also proposing to revise the regulation to specify that the same Temporary Compliance Adjustment Factor is the same whether an engine is subject to NO_x+NMHC standards or NO_x-only standards. The proposed revision

also addresses Tier 3 carry-over engines that would need to certify to the alternate FEL caps after the Tier 4 final standards take effect.

- Proposing to add text to § 1039.625(e) to clarify that exempted engines may meet standards that are more stringent than those specified in the regulation. This proposed change is intended only to avoid the unintended consequence of disallowing a manufacturer from making an engine that was cleaner than it needed to be. Even though these engines are cleaner than they need to be under the replacement-engine exemption, it is still the case that these engines are being exempted from the standards that apply for certified engines; as such, it would be inappropriate for these engines to generate emission credits.
- Proposing to clarify § 1039.625(e) which alternate standards apply to exempted engines in cases where there is more than one set of standards in a given model year. For example, the appropriate standards for 19-56 kW engines are the Option 1 standards specified in § 1039.102, and the appropriate standards for bigger engines are the phase-out standards specified in § 1039.102.
- Proposing to adjust the provision for using interim Tier 4 engines under § 1039.625(a)(2) to require that manufacturers use engines that are identical to previously certified engines, rather than requiring that the exempt engines be certified for the new model year. This addresses an administrative complication related to certifying exempted engines, without changing the requirements that apply.

C. Large SI Fuel Line Permeation

EPA is proposing to amend the required version of the SAE procedure for testing large SI fuel line permeation. In 2002 we adopted evaporative emission standards for

nonroad spark-ignition engines above 19 kW (Large SI engines) (67 FR 68242, November 8, 2002). This rule included a requirement that engines meet a permeation control standard, that could be demonstrated by using fuel lines compliant with SAE J2260, the latest version of which had been completed in 1996 (see 40 CFR 1048.105). This SAE standard effectively established a level of permeation control that had been widely used with automotive products. In adopting this requirement, we expected manufacturers to find “off-the-shelf” automotive-grade products for the nonroad engines and equipment.

In 2008, we revised this requirement by changing the regulation to reference the 2004 version of SAE J2260, which had been finalized after the initial rulemaking (73 FR 59034, October 8, 2008). As noted in our proposed rule, we understood the purpose and effect of the change in the SAE standard to be substantive with regard to the permeation measurement procedure, but not necessarily with regard to the stringency of the standard. The revised SAE protocol specifies a tighter numerical standard, but this corresponded to an offsetting change from a methanol-based test fuel to an ethanol-based test fuel. Switching to ethanol improves the representativeness of the procedure, and it is widely understood that ethanol permeates through fuel-system materials less aggressively than methanol. It is also clear the fuel change would have a non-uniform effect on different fuel-system materials, but our overall expectation was that fuel lines meeting the 1996 version of the standard would also meet the 2004 version of the standard. Following the proposed rule, we received no comments either supporting or contradicting our understanding that updating to the new standard would have no significant effect on the stringency or practicability of the standard.

Since completing the 2008 rulemaking, we have received information indicating that the revision of the regulation to refer to the newer version of SAE J2260 was having a substantive effect on manufacturers' ability to meet the standard. First, it seems that automotive manufacturers have moved beyond the SAE J2260 standard to develop their own proprietary methods of sourcing fuel lines from their suppliers. Since the evaporative emission standards for automotive products involve whole-vehicle measurements in an enclosure, manufacturers have the option to pursue different strategies of balancing emissions from fuel-line permeation with emissions from other sources. In effect, there is no longer a level of emission control or a type of fuel line that we can characterize simply as "automotive-grade". It is also the case that motor vehicle manufacturers buy fuel lines in large quantities of pre-formed parts, rather than buying large spools of fuel line that can be cut and formed for a particular application.

Second, it appears that fuel line suppliers have a very limited ability or willingness to supply fuel lines that they will describe as meeting the 2004 version of SAE J2260. It is not clear whether this is a result of a difference in stringency between the two versions of the standard, or merely that fuel-line suppliers have moved beyond the SAE standard to conform to separate specifications from individual automotive manufacturers. In any case, Large SI equipment is not manufactured in sufficient numbers to greatly influence the fuel line manufacturers' activities, which has prevented Large SI equipment manufacturers from being able to find and use fuel lines meeting the exact specification in the regulations.

We are proposing to address this by again revising the regulation, this time to specify that either the 1996 or 2004 version of SAE J2260 provides an acceptable level of

control for producing compliant Large SI engines and equipment. We do not believe this would have a significant effect on the stringency of the standard. However, to the extent that this would modify the stringency of the existing fuel-line permeation standards at all, it only revises it back to the level of permeation control that we adopted originally in 2002. We note also that the regulations from the California Air Resources Board continue to rely on the 1996 version of SAE J2260. This proposed change therefore would allow for a unified national approach to fuel-line permeation standards.

D. Small SI Proposed Amendments

Since the first emission standards for small spark-ignition (SI) engines (< 19kW), EPA and the California ARB have required the same basic exhaust emission test procedures and durability aging requirements. Both agencies have accepted exhaust emission test results on either agency's test fuel for purposes of certification. This has traditionally meant that for small SI engines used in either handheld or non-handheld equipment, EPA would accept exhaust emission test results based on either its Indolene test fuel (specified at 40 CFR 1065.710) or on California test fuel (specified at section 2262 in the California Code of Regulations (13 CCR 2262)). In 2008, when EPA promulgated the current small SI exhaust emission standards, the California test fuel, commonly referred to as California Phase 2 gasoline or CA RFG 2, was a seven pound per square inch (psi) Reid Vapor Pressure (RVP) gasoline which had approximately 11 percent methyl tertiary butyl ether (MTBE) as an oxygenate additive. This test fuel had been used in the California small off road emission (SORE) program since 1995.

Our 2008 final rule included provisions at § 1054.145(k) indicating that EPA would not accept carryover exhaust emission certification data on CA RFG 2 after the

2012 model year (73 FR 59034, October 8, 2008). However, we left open the possibility of continuing to accept carryover exhaust emission test data on CA RFG 2 subject to the provisions of 40 CFR 1065.10, 1065.12 and 1065.701, which would permit EPA to approve its continued use if it does not affect the manufacturers' ability to show that the affected engines would comply with all applicable emission standards using the fuel specified by EPA in 40 CFR 1065.710. Manufacturers have recently provided emissions data meeting the regulatory requirements listed above and EPA has permitted the use of CA RFG 2 (California Phase 2 gasoline) for certification for the 2013 model year.⁸

Recently, California adopted new requirements for their gasoline certification test fuel for nonroad engines. Over the period from 2013-2020, manufacturers must transition from CA RFG 2 to a gasoline certification test fuel that contains 10 percent ethanol (E10) and has a seven psi RVP (commonly referred to as California Phase 3 gasoline or CA RFG 3). This new requirement aligns California test fuels with their current in-use gasoline.

Considering this background and recent developments, EPA is proposing to make two changes to its current regulatory provisions. First, EPA believes it is appropriate to propose to extend its current practice of accepting exhaust emission test results for small SI engines to include CA RFG 3. For the 2013-2019 model years (inclusive), EPA would accept exhaust emission certification data generated using CA RFG 3 test fuel. Harmonization with California on test procedures and test fuel requirements for small

⁸ See EPA Dear Manufacturer Letter CD-12-17(NRSSI), October 29, 2012.

spark-ignition engines has significant value to the engine and equipment manufacturers and users of those products. It allows for development and certification of only one engine for a given model or application by the manufacturer and allows for greater model availability and lower overall cost due to 50-state production. In addition, E10, which is used in CA RFG 3, is common in gasoline sold across the U.S. today. Therefore, permitting the use of CA RFG 3 in emissions certification would allow test fuel to more closely match the in-use fuel used across the U.S. Accounting for the ethanol in the fuel is likely to enhance engine emissions in-use durability, because the presence of oxygen in the ethanol in the test fuel would need to be accommodated in the engine calibrations. This would reduce engine operating temperatures in-use relative to engines calibrated on a test fuel without oxygen.

While EPA is proposing to accept manufacturer use of CA RFG 3 for the purposes of testing, EPA is not prepared to propose to accept use of CA RFG 3 as a fully permissible replacement test fuel for Indolene. Test data indicate that NMHC+NO_x exhaust emissions using CA RFG 3 will be comparable relative to results on Federal certification fuel. However, due to the presence of an oxygenate (approximately 3 percent) caused by the inclusion of E10 in CA RFG 3, tested CO emissions would be reduced when an engine is tested using CA RFG 3, compared to Indolene which includes no oxygenates (see 40 CFR 1065.710). EPA's official test fuel is Indolene and the level of the CO emission standards for small SI engines (see 40 CFR 1054.103 and 1054.105) is based on the use of that fuel. Therefore, EPA cannot fully accept test results using CA RFG 3 as showing compliance with EPA CO standards, because CO test emissions

showing compliance using CA RFG 3 do not guarantee that an engine will be able to comply with EPA's CO standard using Indolene.

Therefore, EPA proposes to retain the option to conduct any production line, confirmatory, and selective enforcement audit (SEA) testing on EPA test fuel as specified in 40 CFR 1065.710.⁹ However, as an option for the manufacturers, to bring some uniformity and certainty to the engine development and calibration, emissions testing, and emissions durability assessment processes, EPA proposes to use CA RFG 3 test fuel for any production line, confirmatory, and SEA testing if a manufacturer(s) agree to meet a lower CO emission standard. These values, which substantially address the effect of oxygenate content on CO emission rates, are 549 g/kW-hr for Classes I and II (non handheld engines) and 536 g/kW-hr for Classes III-V (handheld engines). These values are the same as California's current CO emission standards (based on the use of CA RFG 2); they are 10-33 percent lower (depending on Class) than EPA's CO emission standards (see 40 CFR 1054.103 and 1054.105) because they account for oxygenate content in that fuel. This would not represent a proposed change in stringency, as the engine designs and calibration would not change, but CO emissions would decrease due to the oxygenate content of the California test fuel. This proposed option would be available for Class I and II marine generators at a CO emission standard of 4.5 g/kW-hr. This value was derived based on the ratio of the California CO emission standards to the Federal emission standards for other Class I and II marine generators. This option would

⁹ EPA already requires a ten percent ethanol blend for evaporative emissions testing.

be available on a family-by-family basis for all Classes of small SI engines. We consider these CO emission standards to be interim values for purposes of this option only. EPA may revise the level of its CO emission standard in the future if we propose to change the Federal test fuel specifications.

Second, EPA proposes to continue accepting exhaust emissions data on CA RFG 2 after the 2012 model year (see 40 CFR 1054.145(k)). Manufacturers have provided data for both handheld and nonhandheld engines showing equivalent exhaust emission levels between CA RFG 2 and the gasoline specified in 40 CFR 1065.710 (Indolene). Furthermore, the move to CA RFG 3 sets in motion a process to eliminate CA RFG 2 certifications in the future as would have been required under 40 CFR 1054.145(k). Thus, to help enable an orderly and cost effective transition, EPA believes it is appropriate for us to continue to accept exhaust emission test data using CA RFG 2 for certification through the 2019 model year. We would expect engine families certified using CA RFG 2 carryover exhaust emission data to meet emissions standards on both CA RFG 2 and EPA certification test fuel as specified in 40 CFR 1065.710 for any production line, SEA, or confirmatory testing.

Both of these proposed actions would apply for certification for model years 2013 to 2019, inclusive. EPA expects to revisit these provisions before 2020 to determine if they should be extended or otherwise modified. The primary EPA program using Indolene test fuel and meeting the current EPA emission standards remains in place for Federal certification for 2013 and beyond unless and until these provisions are otherwise modified.

We are also taking the opportunity to propose to revise the regulatory provision in § 1054.145(c) describing requirements related to altitude kits for handheld engines. We adopted those specifications based on the expectation that the Phase 3 exhaust standards were unchanged from the Phase 2 exhaust standards. As such, the emission standards do not apply at altitudes for which the manufacturer would need to rely on an altitude kit. The regulation should therefore be revised to no longer refer to the manufacturer relying on an altitude kit “to meet emission standards.” This proposed change in the regulations is not intended to change current requirements, but rather simply clarifies the proper relationship of the altitude kit to the certified configuration.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a ‘significant regulatory action’ because it raises issues that may have a potential effect on actions taken or planned by another agency. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

This proposal merely clarifies and corrects existing regulatory language. EPA does not believe there will be costs associated with this rule because the costs in this program were previously accounted for under the existing rules (69 FR 38958, June 29, 2004; 73 FR 59034, October 8, 2008; and 76 FR 57106, September 15, 2011). This proposed rule is not anticipated to create additional burdens to the existing requirements. As such, a regulatory impact evaluation or analysis is unnecessary. EPA also does not

expect this rule to have substantial Congressional or public interest.

B. Paperwork Reduction Act

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. Burden is defined at 5 CFR 1320.3(b). The information collection requirements to ensure compliance with the provisions in these rules were covered under ICR (2394.02).

The Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing heavy-duty greenhouse gas emissions regulations under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 et seq. and has assigned OMB Control Number 2060–0678. The OMB control numbers for EPA’s regulations in title 40 of the Code of Federal Regulations are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121, 110 Stat. 857), generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, small entity is defined as: (1) a small business as defined by Small Business Administration regulations at 13 CFR 121.201; (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.

After considering the economic impacts of this proposed rule on small entities, we conclude that this proposed action would not have a significant economic impact on a substantial number of small entities.

This proposal would merely correct and clarify regulatory provisions. In particular, as already adopted in the heavy-duty vehicle GHG and fuel efficiency rules, EPA is deferring standards for manufacturers meeting the Small Business Administration's definition of small business as described in 13 CFR 121.201.

There would be no costs and therefore no regulatory burden associated with this proposed rule. We have therefore concluded that this proposed rule would not increase regulatory burden for affected small entities. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

This proposed action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for State, local, or tribal governments or the private sector. The proposed action would impose no enforceable duty on any State, local or tribal governments or the private sector. Therefore, this proposed action is not subject to the requirements of sections 202 or 205 of the UMRA.

This proposed action is also not subject to the requirements of section 203 of

UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

This proposed action does not have federalism implications. It would 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. This notice of proposed rulemaking merely corrects and clarifies regulatory provisions. Thus, Executive Order 13132 does not apply to this proposed action.

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

This proposed action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This notice of proposed rulemaking merely corrects and clarifies regulatory provisions. Tribal governments would be affected only to the extent they purchase and use regulated vehicles. Thus, Executive Order 13175 does not apply to this action. EPA specifically solicits additional comment on this proposed action from tribal officials.

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

This proposed action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in Executive Order 12866, and because EPA does not believe the environmental health or safety risks addressed by this proposed action present a disproportionate risk to children. This notice of proposed

rulemaking merely corrects and clarifies regulatory provisions.

H. Executive Order 13211: Actions that Significantly Affect Energy Supply,

Distribution, or Use

This proposed action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This notice of proposed rulemaking merely corrects and clarifies regulatory provisions.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do 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 agencies to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed action would slightly expand the use of voluntary consensus standards by adding a reference standard under 40 CFR 1048.105. Other amendments in this proposed rule do not involve application of new technical standards. However, the underlying regulations in many cases rely on voluntary consensus standards. For example, EPA included several voluntary consensus standards in the development of the Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles (76 FR 57106, September 15, 2011).

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this proposed rule would not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it merely would correct provisions for manufacturers to use to demonstrate compliance of heavy-duty engines and vehicles.

V. Statutory Authority

Statutory authority for the vehicle controls is found in Clean Air Act section 202(a) (which authorizes standards for emissions of pollutants from new motor vehicles which emissions cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare), sections 202(d), 203-209, 216, and 301 (42 U.S.C. 7521 (a), 7521 (d), 7522, 7523, 7524, 7525, 7541, 7542, 7543, 7550, and 7601).

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 1036

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

40 CFR Part 1037

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

40 CFR Part 1039

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

40 CFR Part 1042

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

40 CFR Part 1048

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 1054

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

40 CFR Parts 1065 and 1066

Administrative practice and procedure, Air pollution control, 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: May 9, 2013

Bob Perciasepe,
Acting Administrator

[FR Doc. 2013-11979 Filed 06/14/2013 at 8:45 am; Publication Date:
06/17/2013]