

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 60, 85, 89, 94, 1039, 1065, and 1068**

[EPA-HQ-OAR-2005-0029, FRL-8190-7]

RIN 2060-AM82

**Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

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

**ACTION:** Final rule.

**SUMMARY:** EPA is promulgating standards of performance for stationary compression ignition (CI) internal combustion engines (ICE). The standards will implement section 111(b) of the Clean Air Act (CAA) and are based on the Administrator's determination that stationary CI ICE cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare. The intended effect of the standards is to require all new, modified, and reconstructed stationary CI ICE to use the best demonstrated system of continuous emission reduction, considering costs, non-air quality health, and environmental and energy impacts, not just with add-on controls, but also by eliminating or reducing the formation of these

pollutants. The final standards will reduce nitrogen oxides (NO<sub>x</sub>) by an estimated 38,000 tons per year (tpy), particulate matter (PM) by an estimated 3,000 tpy, sulfur dioxide (SO<sub>2</sub>) by an estimated 9,000 tpy, non-methane hydrocarbons (NMHC) by an estimated 600 tpy, and carbon monoxide (CO) by an estimated 18,000 tpy in the year 2015.

**DATES:** The final rule is effective on September 11, 2006. The incorporation by reference of a certain publication listed in the final rule is approved by the Director of the Federal Register as of September 11, 2006.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2005-0029. We also rely on documents in Docket ID No. EPA-HQ-OAR-2003-0012 and incorporate that docket into the record for the final rule. All documents in the docket are listed on the [www.regulations.gov](http://www.regulations.gov) Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through [www.regulations.gov](http://www.regulations.gov) or in hard copy at

the Air and Radiation Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The Docket telephone number is (202) 566-1742. 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 EPA Docket Center is (202) 566-1742. As of the date of signature, the physical docket is temporarily unavailable due to flooding, but interested members of the public can receive the list of documents in the docket or any particular documents electronically by accessing the electronic docket or by calling the contact person. We hope that the physical docket will be accessible again before publication.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jaime Pagán, Energy Strategies Group, Sector Policies and Programs Division (D243-01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number (919) 541-5340; facsimile number (919) 541-5450; electronic mail address [pagan.jaime@epa.gov](mailto:pagan.jaime@epa.gov).

**SUPPLEMENTARY INFORMATION:**  
*Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS <sup>1</sup>	Examples of regulated entities
Any manufacturer that produces or any industry using a stationary internal combustion engine as defined in the final rule.	2211	Electric power generation, transmission, or distribution.
	622110	Medical and surgical hospitals.
	335312	Motor and generator manufacturing.
	33391	Pump and compressor manufacturing.
	333992	Welding and soldering equipment manufacturing.

<sup>1</sup> North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your engine is regulated by this action, you should examine the applicability criteria in § 60.4200 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

*Worldwide Web (WWW).* In addition to being available in the docket, an electronic copy of the final rule will be available on the WWW through the Technology Transfer Network Web site (TTN). Following signature, EPA will post a copy of the final rule on the

TTN's policy and guidance page for newly proposed or promulgated rules at <http://www.epa.gov/ttn/oarpg>. The TTN provides information and technology exchange in various areas of air pollution control.

*Judicial Review.* Under CAA section 307(b)(1), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia by September 11, 2006. Under CAA section 307(d)(7)(B), only an objection to the final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by this final action may not

be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for EPA to convene a proceeding for reconsideration, "[i]f the person raising an objection can demonstrate to EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the same

time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration to EPA should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Director of the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20004.

**Background Information Document.** EPA proposed new source performance standards (NSPS) for CI ICE on July 11, 2005 (70 FR 39870), and received 47 comment letters on the proposal. A background information document (BID) ("Response to Public Comments on Proposed Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,") containing EPA's responses to each public comment and the Economic Impact Analysis Report are available in Docket ID No. EPA-HQ-OAR-2005-0029.

**Organization of This Document.** The following outline is provided to aid in locating information in the preamble.

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  - H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
  - I. National Technology Transfer and Advancement Act
  - J. Congressional Review Act

## I. Background

This action promulgates NSPS that will apply to new stationary CI ICE. New source performance standards implement section 111(b) of the CAA, and are issued for categories of sources which cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. The standards apply to new stationary sources of emissions, *i.e.*, sources whose construction, reconstruction, or modification begins after a standard for those sources is proposed. NSPS require these sources to control emissions to the level achievable by best demonstrated technology (BDT), considering costs and any non-air quality health and environmental impacts and energy requirements.

## II. Summary of the Final Rule

### A. What is the source category regulated by the final rule?

The final rule applies to stationary CI ICE. A stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines. A CI engine means a type of stationary internal combustion engine that is not a spark ignition (SI) engine. A SI engine means a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical

Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are SI engines.

### B. What are the pollutants regulated by the final rule?

The pollutants to be regulated by the final rule are NO<sub>x</sub>, PM, CO, and NMHC.<sup>1</sup> Emissions of sulfur oxides (SO<sub>x</sub>) will also be reduced through the use of lower sulfur fuel. Smoke emissions will also be reduced through the implementation of the final standards. Emissions of hazardous air pollutants (HAP) from these engines have been, or will be, regulated in separate rulemakings promulgated under CAA section 112.<sup>2</sup>

### C. What sources are subject to the final rule?

The affected source for the CI ICE NSPS is each stationary CI internal combustion engine whose construction, modification or reconstruction commenced after July 11, 2005. The date of construction is the date the engine is ordered by the owner or operator. Stationary CI ICE manufactured prior to April 1, 2006, that are not fire pump engines are not subject to the final rule, unless the engines are modified or reconstructed after July 11, 2005. Stationary fire pump CI ICE manufactured prior to July 1, 2006, are not subject to the final rule either, unless the engines are modified or reconstructed after July 11, 2005. Manufacturers of 2007 and later model year stationary CI ICE that are not fire pumps are subject to the final rule. For fire pump engines, the date of manufacturing is the date the engine is built into a certified National Fire Protection Association (NFPA) fire pump engine. Manufacturers of fire

<sup>1</sup> Primarily for reasons of testing ease and because engine manufacturers are familiar with testing for NMHC, this rule, as with previous rules promulgating emission standards for mobile source internal combustion engines, uses NMHC rather than VOC as the metric for measuring organic compounds that can contribute to ozone formation. C.f. 40 CFR part 60, Method 25 (Determination of Total Gaseous Nonmethane Organic Emissions as Carbon.)

<sup>2</sup> Emissions of HAP from stationary reciprocating internal combustion engines (RICE) located at major sources were the subject of a final rule published on June 15, 2004 (69 FR 33473). Emissions of HAP from other stationary RICE will be the subject of another rulemaking that will be promulgated no later than December 20, 2007.

pump engines are subject to the final rule beginning with the first model year that new fire pump engines in a particular horsepower class must meet standards more stringent than Tier 1 standards, which can be any model year from 2008 to 2011, depending on the horsepower of the engine.

Owners and operators of new stationary CI ICE who are subject to the final rule (as discussed above) must meet the requirements of § 60.4208 of the final rule, which restricts the installation of engines subject to outdated emission standards. This restriction applies only to the installation of new engines subject to the final rule, and does not apply to the installation of previously used engines.

D. What are the final standards?

1. Overview

The format of the final standard is an output-based emission standard for PM,

NO<sub>x</sub>, CO, and NMHC in units of emissions mass per unit work performed (grams per kilowatt-hour (g/KW-hr)) and smoke standards as a percentage. The emission standards are generally modeled after EPA's standards for nonroad and marine diesel engines. The nonroad diesel engine standards are phased in over several years and have Tiers with increasing levels of stringency. The engine model year in which the Tiers take effect varies for different size ranges of engines. The Tier 1 standards were phased in for nonroad diesel engines beginning in 1996 to 2000. The Tier 2 nonroad CI standards are phased in starting from 2001 to 2006, and the Tier 3 limits are phased in starting from 2006 to 2008. The Tier 3 limits apply for engines greater than or equal to 50 and less than or equal to 750 horsepower (HP) only. Tier 4 limits for nonroad engines are phased in beginning in 2008.

2. Final Standards for Engine Manufacturers

Engine manufacturers must meet the emission standards of the rule during the useful life of the engine. a. 2007 Model Year and Later Non-Emergency Stationary CI ICE ≤3,000 HP and With a Displacement <10 Liters per Cylinder. The standards require that engine manufacturers certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 3,000 HP and a displacement of less than 10 liters per cylinder to the Tier 2 through Tier 4 nonroad diesel engine standards as shown in table 1 of this preamble, as applicable, for all pollutants, for the same model year and maximum engine power.

TABLE 1.—NO<sub>x</sub>, NMHC, CO, AND PM EMISSION STANDARDS IN G/KW-HR (G/HP-HR) FOR 2007 MODEL YEAR AND LATER NON-EMERGENCY ENGINES ≤3,000 HP AND WITH A DISPLACEMENT <10 LITERS PER CYLINDER AND 2011 MODEL YEAR AND LATER NON-EMERGENCY ENGINES >3,000 HP AND WITH A DISPLACEMENT <10 LITERS PER CYLINDER<sup>a</sup>

Maximum engine power	Model year(s)	NMHC + NO <sub>x</sub>	NMHC	NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	2007	7.5 (5.6)	.....	.....	8.0 (6.0)	0.80 (0.60)
	2008+	.....	.....	.....	.....	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2007	.....	.....	.....	6.6 (4.9)	0.80 (0.60)
	2008+	.....	.....	.....	.....	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2007	7.5 (5.6)	.....	.....	5.5 (4.1)	0.60 (0.45)
	2008–2012	.....	.....	.....	.....	0.30 (0.22)
	2013+	4.7 (3.5)	.....	.....	.....	0.03 (0.02)
	2014+	.....	.....	.....	.....	0.03 (0.02)
37≤KW<56 (50≤HP<75)	2007	7.5 (5.6)	.....	.....	5.0 (3.7)	0.40 (0.30)
	2008–2012	4.7 (3.5)	.....	.....	.....	<sup>a</sup> 0.30 (0.22)
	2013+	.....	.....	.....	.....	0.03 (0.02)
	2014+	.....	.....	.....	.....	0.03 (0.02)
56≤KW<75 (75≤HP<100)	2007	7.5 (5.6)	.....	.....	.....	0.40 (0.30)
	2008–2011	4.7 (3.5)	.....	.....	.....	.....
	2012–2013	.....	<sup>b</sup> 0.19 (0.14)	<sup>b</sup> 0.40 (0.30)	5.0 (3.7)	0.02 (0.01)
	2014+	.....	0.19 (0.14)	0.40 (0.30)	.....	.....
	2015+	.....	.....	.....	.....	.....
75≤KW<130 (100≤HP<175)	2007	4.0 (3.0)	.....	.....	.....	0.30 (0.22)
	2008–2011	.....	.....	.....	.....	.....
	2012–2013	.....	<sup>b</sup> 0.19 (0.14)	<sup>b</sup> 0.40 (0.30)	5.0 (3.7)	0.02 (0.01)
	2014+	.....	0.19 (0.14)	0.40 (0.30)	.....	.....
130≤KW<560 (175≤HP<750)	2007–2010	4.0 (3.0)	.....	.....	3.5 (2.6)	0.20 (0.15)
	2011–2013	.....	<sup>b</sup> 0.19 (0.14)	<sup>b</sup> 0.40 (0.30)	.....	0.02 (0.01)
	2014+	.....	0.19 (0.14)	0.40 (0.30)	.....	.....
	2015+	.....	.....	.....	.....	.....
KW>560 (HP>750) Except generator sets	2007–2010	6.4 (4.8)	.....	.....	3.5 (2.6)	0.20 (0.15)
	2011–2014	.....	0.40 (0.30)	3.5 (2.6)	.....	0.10 (0.075)
	2015+	.....	0.19 (0.14)	3.5 (2.6)	.....	0.04 (0.03)
Generator sets 560<KW≤900 (750<HP≤1200)	2007–2010	6.4 (4.8)	.....	.....	3.5 (2.6)	0.20 (0.15)
	2011–2014	.....	0.40 (0.30)	3.5 (2.6)	.....	0.10 (0.075)
	2015+	.....	0.19 (0.14)	0.67 (0.50)	.....	0.03 (0.02)
	2016+	.....	.....	.....	.....	.....
Generator sets KW>900 (HP>1200)	2007–2010	6.4 (4.8)	.....	.....	3.5 (2.6)	0.20 (0.15)
	2011–2014	.....	0.40 (0.30)	0.67 (0.50)	.....	0.10 (0.075)
	2015+	.....	0.19 (0.14)	.....	.....	0.03 (0.02)
	2016+	.....	.....	.....	.....	.....

<sup>a</sup> A manufacturer has the option of skipping the 0.30 g/KW-hr PM standard for all 37–56 KW (50–75 HP) engines. The 0.03 g/KW-hr standard would then take effect 1 year earlier for all 37–56 KW (50–75 HP) engines, in 2012. The Tier 3 standard (0.40 g/KW-hr) would be in effect until 2012.

<sup>b</sup> 50 percent of the engines produced have to meet the NO<sub>x</sub> + NMHC standard, and 50 percent have to meet the separate NO<sub>x</sub> and NMHC limits.

b. 2007 Model Year and Later Non-Emergency Stationary CI ICE >3,000 HP

and With a Displacement <10 Liters per Cylinder. The standards require that

engine manufacturers certify their 2007 through 2010 model year non-

emergency stationary CI ICE with a maximum engine power greater than 3,000 HP and a displacement of less than 10 liters per cylinder to the emission standards shown in table 2 of this preamble. For 2011 model year and

later non-emergency stationary CI ICE with a maximum engine power greater than 3,000 HP and a displacement of less than 10 liters per cylinder, manufacturers must certify these engines to the Tier 4 nonroad diesel

engine standards as shown in table 1 of this preamble, as applicable, for all pollutants, for the same model year and maximum engine power.

TABLE 2.—NO<sub>x</sub>, NMHC, CO, AND PM EMISSION STANDARDS IN G/KW-HR (G/HP-HR) FOR PRE-2007 MODEL YEAR ENGINES WITH A DISPLACEMENT <10 LITERS PER CYLINDER AND 2007–2010 MODEL YEAR ENGINES >3,000 HP AND WITH A DISPLACEMENT <10 LITERS PER CYLINDER

Maximum engine power	NMHC + NO <sub>x</sub>	HC	NO <sub>x</sub>	CO	PM
KW<8 (HP<11) .....	10.5 (7.8)	.....	.....	8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25) .....	9.5 (7.1)	.....	.....	6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50) .....	9.5 (7.1)	.....	.....	5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75) .....	.....	.....	9.2 (6.9)	.....	.....
56≤KW<75 (75≤HP<100) .....	.....	.....	9.2 (6.9)	.....	.....
75≤KW<130 (100≤HP<175) .....	.....	.....	9.2 (6.9)	.....	.....
130≤KW<225 (175≤HP<300) .....	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600) .....	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW<560 (600≤HP<750) .....	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750) .....	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

c. 2007 Model Year and Later Non-Emergency Stationary CI ICE with a Displacement ≥10 and <30 Liters per Cylinder. The standards require that engine manufacturers certify their 2007 model year and later non-emergency

stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all

pollutants, for the same displacement and maximum engine power. These emission standards are shown in table 3 of this preamble.

TABLE 3.— NO<sub>x</sub>, THC, CO, AND PM EMISSION STANDARDS IN G/KW-HR FOR 2007 MODEL YEAR AND LATER STATIONARY CI ICE WITH A DISPLACEMENT ≥10 AND <30 LITERS PER CYLINDER

Engine size—liters per cylinder, rated power	THC + NO <sub>x</sub>	CO	PM
5.0≤displacement<15.0 All Power Levels .....	7.8	5.0	0.27
15.0≤displacement<20.0 <3,300 KW .....	8.7	5.0	0.50
15.0≤displacement<20.0 ≥3,300 KW .....	9.8	5.0	0.50
20.0≤displacement<25.0 All Power Levels .....	9.8	5.0	0.50
25.0≤displacement<30.0 All Power Levels .....	11.0	5.0	0.50

d. 2007 Model Year and Later Emergency Stationary CI ICE <30 Liters per Cylinder. The standards require that manufacturers certify their 2007 model year and later emergency stationary CI ICE less than or equal to 3,000 HP and with a displacement of less than 10 liters per cylinder that are not fire pump engines to Tier 2 through Tier 3 nonroad CI engine emission standards, and Tier 4 nonroad CI engine standards that do not require add-on control, according to the nonroad diesel engine schedule. Manufacturers must certify their 2007 through 2010 model year emergency stationary CI ICE greater than 3,000 HP and with a displacement less than 10 liters per cylinder that are not fire pump engines to the emission standards shown in table 2 of this preamble. Manufacturers must certify their 2011 model year and later emergency stationary CI ICE that are greater than 3,000 HP and with a displacement less than 10 liters per cylinder that are not fire pumps to Tier 2 and Tier 3 nonroad

CI engine standards, and to Tier 4 nonroad CI engine standards that do not require add-on control. Manufacturers are required to certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8. Manufacturers must certify their post-Tier 1 emergency fire pumps to the emission standards shown in table 4 of this preamble.

3. Final Standards for Owners and Operators

Owners and operators of stationary CI ICE are required to meet the emission standards in the final rule over the entire life of the engine.

a. Stationary CI ICE with a Displacement <30 Liters per Cylinder. Owners and operators that purchase pre-2007 model year stationary CI ICE with a displacement of less than 10

liters per cylinder that are not fire pump engines must meet the emission standards for pre-2007 model year engines, which are shown in table 2 of this preamble. Owners and operators that purchase pre-2007 model year stationary CI ICE with a displacement of greater than or equal to 10 and less than 30 liters per cylinder that are not fire pump engines must meet the emissions standards in 40 CFR 94.8(a)(1). Section 94.8(a)(1) specifies the following NO<sub>x</sub> limits: 17.0 g/KW-hr (12.7 g/HP-hr) when the maximum test speed is less than 130 revolutions per minute (rpm); 45.0 × N<sup>-0.20</sup> when maximum test speed is at least 130 but less than 2000 rpm, where N is the maximum test speed of the engine in rpm; and 9.8 g/KW-hr (7.3 g/HP-hr) when maximum test speed is 2000 rpm or more.

Owners and operators that purchase fire pump engines must meet the emission standards in table 4 to the final rule.

Owners and operators that purchase 2007 model year and later stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines, and post-Tier 1 fire pump engines, must purchase an engine that is certified by the manufacturer according to the provisions of the rule.

b. Stationary CI ICE with a Displacement ≥30 Liters per Cylinder. Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder are required to reduce NO<sub>x</sub> emissions by 90 percent or more, or alternatively they must limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion

engine exhaust to 1.6 g/KW-hr (1.2 g/HP-hr). Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder are also required to reduce PM emissions by 60 percent or more, or alternatively they must limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 grams per KW-hour (0.11 grams per HP-hour).

4. Final Standards for Manufacturers and Owners and Operators of Emergency Stationary Fire Pump Engines

The rule requires that owners and operators of emergency fire pump

engines meet the emission standards shown in table 4 of this preamble, for all pollutants, for the same model year and NFPA nameplate engine power. Starting with the model year in which the most stringent standards begin for each HP range, emergency fire pumps must be certified to the emission standards shown in table 4 of this preamble. Emergency fire pump engines between 50 and 600 HP with a rated speed of greater than 2,650 rpm have been given an additional 3 years to meet the most stringent emission standards.

TABLE 4.—NO<sub>x</sub>, NMHC, CO, AND PM EMISSION STANDARDS IN G/KW-HR (G/HP-HR) FOR EMERGENCY FIRE PUMP ENGINES

Maximum engine power	Model year(s)	NMHC + NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011 +	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 + <sup>a</sup>	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 + <sup>a</sup>	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010 + <sup>a</sup>	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 + <sup>a</sup>	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 + <sup>a</sup>	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008 +	6.4 (4.8)		0.20 (0.15)

<sup>a</sup>Emergency fire pump engines with a rated speed of greater than 2,650 rpm are allowed an additional 3 years to meet these standards.

5. Fuel Requirements

In addition to emission standards, the final rule requires that beginning October 1, 2007, owners and operators of stationary CI ICE that use diesel fuel must only use diesel fuel meeting the requirements of 40 CFR 80.510(a), which requires that diesel fuel have a maximum sulfur content of 500 parts per million (ppm) and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. Beginning October 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel must only use diesel fuel meeting the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, which requires that diesel fuel have a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a

maximum aromatic content of 35 volume percent. The final rule does not contain a standard for SO<sub>2</sub>; the use of low sulfur diesel fuel will result in lower emissions of SO<sub>2</sub>. EPA does not expect that the lubricity of the ultra low sulfur diesel (ULSD) will be an issue because additives can be added to ULSD to achieve a sufficient lubricity.

Manufacturers of stationary CI ICE with a displacement of 30 liters per cylinder or more indicated that they are able to operate their engines on 500 ppm sulfur fuel, but they do not have any experience operating their engines on 15 ppm sulfur fuel, and they need to perform testing to ensure there are no problems with the lubricity of the ULSD fuel. The use of ULSD is not required for owners and operators of these engines.

The fuel requirements of this rule only apply to engines that are subject to this rule, *i.e.*, those engines that meet

the applicability provisions of § 60.4200 of the final rule.

*E. What are the requirements for sources that are modified or reconstructed?*

The final standards apply to stationary CI ICE that are modified or reconstructed after July 11, 2005. The guidelines for determining whether a source is modified or reconstructed are given in 40 CFR 60.14 and 40 CFR 60.15, respectively. Stationary CI ICE that are modified or reconstructed must meet the emission standards for the model year in which the engine was originally new, not the year the engine was modified or reconstructed. Therefore, a pre-2007 model year engine modified after 2007 must meet the emission standards for pre-2007 model year engines.

*F. What are the requirements for demonstrating compliance?*

1. Engine Manufacturers

Manufacturers of stationary CI ICE must demonstrate compliance with the final rule by certifying that their 2007 model year and later stationary CI ICE with displacement less than 30 liters per cylinder meet the emission standards in the final rule using the certification procedures in subpart B of 40 CFR part 89, subpart C of 40 CFR part 94, or subpart C of 40 CFR part 1039, as applicable, and must test their engines as specified in those parts.

Manufacturers of fire pump engines do not have to certify Tier 1 engines and, for post-Tier 1 engines, may use the optional test cycle provided in table 6 to the final rule. Manufacturers of certified stationary CI ICE that must meet the emission standards of 40 CFR part 1039 must also meet the emission-related warranty requirements of 40 CFR 1039.120; the provisions in 40 CFR 1039.125 and 40 CFR 1039.130, which require the engine manufacturer to provide engine installation and maintenance instructions to buyers; the engine labeling requirements in 40 CFR 1039.135; and the general compliance provisions in 40 CFR part 1068.

Manufacturers of certified stationary CI ICE that must meet the emission standards of 40 CFR part 89 or 40 CFR part 94 must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. After the Tier 4 standards take effect, manufacturers of emergency stationary CI ICE that do not meet the standards for non-emergency engines must add to each such emergency engine a permanent label which states that the engine is for emergency use only. Engine manufacturers must also specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

Engine manufacturers that certify an engine family or families to standards under the final rule that are identical to standards applicable under 40 CFR part 89, 40 CFR part 94, or 40 CFR part 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading (ABT) provisions applicable for such engines under those parts.

EPA has used ABT often in the context of the nonroad engine program.

The averaging provisions basically allow manufacturers to certify certain engine families to emission levels more stringent than required and to certify other engine families to levels less stringent than required, as long as the average emission levels to which these engine families are certified are at least equal to the appropriate standards. The banking program allows manufacturers to generate credits by certifying engine families to more stringent standards than required in a particular year and to use such credits in later years. The trading provisions allow engine manufacturers to trade credits with other engine manufacturers covered by the same requirements. The ABT provisions include significant restrictions and compliance requirements, including upper limits on the level to which any engine family may certify.

Under the nonroad engine program, the ABT provisions, where applied, are important elements in our determination of the standards of performance that represent "the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines \* \* \* to which the standards apply, giving appropriate consideration to the cost of applying such technology within the period of time available to manufacturers and to noise, energy and safety factors \* \* \*." See CAA section 213(a)(3) and *Natural Resources Defense Council v. Thomas*, 805 F.2d 410, 425 (D.C. Cir. 1986) (upholding EPA regulations allowing manufacturers to meet emission standards for heavy-duty engines by averaging among engine families); see also discussions at 69 FR 38996 (June 29, 2004) and 55 FR 30584, 93-99 (July 26, 1990).

Similarly, we believe that these ABT provisions are essential elements in our determination that the final standards reflect best BDT. The flexibility provided by the ABT provisions allows the manufacturer to adjust its compliance for engine families for which coming into compliance with the standards will be particularly difficult or costly, without special delays or exceptions having to be written into the final rule. Emission-credit programs also create an incentive for the early introduction of new technology (for example, to generate credits in early years to create compliance flexibility for later engines), which allows certain engine families to act as trailblazers for new technology. This improves the feasibility of achieving the standards for the entire population of regulated engines. EPA has concluded as a factual

matter, as reflected in this final rule, that an ABT program, operated at the level of the manufacturer, represents the best system of emissions reductions, considering all relevant factors.

We believe the ABT provisions are appropriate for this program. The ABT provisions are applicable to engine manufacturers, who manufacture numerous engines for use in all areas of the country, as opposed to the final owner/operators of the units. These standards will apply to hundreds of different engine families that will be used in tens of thousands of different engines. The flexibility provided by the ABT program is an important instrument for manufacturers to use in meeting the stringent standards of this program affecting a large number of engine families.

We are finalizing minor revisions to several existing mobile source regulations to help incorporate several of these provisions.

EPA is requiring that manufacturers of stationary CI ICE that are seeking certificates of conformity be subject to the same fee provisions as those promulgated for comparable land-based and marine nonroad engines in EPA's most recent fees rulemaking (see 69 FR 26222, May 11, 2004) and be required to comply with the fees rule in the same manner as manufacturers already subject to the fees regulations. Because EPA will be providing certificates of conformity to stationary CI ICE manufacturers and, thus is providing a service or thing of value to the manufacturers, the Independent Offices Appropriations Act (31 U.S.C. 9701) authorizes such a fee collection. Having reviewed the recent fees rule for the motor vehicle and engine compliance program, and its associated cost study which examined EPA's incurred cost of compliance services, we believe that the fees provided in that rule are appropriate for the comparable costs of administering the compliance program for the engines associated with this final rule. These engines are subject to the same general compliance regime as land-based nonroad CI engines and, for those with a displacement between 10 and 30 liters per cylinder, marine engines covered by the existing fees rule. We believe fees for each respective request for certification of conformity for stationary CI ICE should have the same fee amount as for those engines.

Under the provisions of the existing fees rule, the initial fees for certification applications received in the 2004 and 2005 calendar years (for example, \$1,822 and \$826, respectively, for land-based nonroad CI engines and marine engines) are adjusted on an annual basis

based on several factors, including any changes in the number of certificates in the respective fee categories. Thus, the number of certificates that EPA issues for the engines covered by this final rule will be included in the respective fee categories when EPA conducts its annual calculation for the purposes of adjusting fees based on the existing regulatory formula. Please note that the fee amounts for calendar year 2006 have slightly increased from the fee amounts for the 2004 and 2005 calendar year fees. See EPA's Guidance Letter CCD-05-05 at <http://www.epa.gov/otaq/cert/dearmfr/dearmfr.htm>. Finally, EPA believes it appropriate to commence the collection of fees immediately for each certification of conformity request once the final rule becomes effective.

## 2. Owners and Operators

All engines and control devices must be installed, configured, operated, and maintained according to the specifications and instructions provided by the engine manufacturer. EPA has also included the option for owners and operators to follow procedures developed by the owner or operator that have been approved by the engine manufacturer for cases where site-specific conditions may require changes to the manufacturer's typical guidelines. Other compliance requirements for owners and operators of stationary CI ICE depend on the displacement and model year of the engine. Owners and operators of pre-2007 model year engines with a displacement less than 30 liters per cylinder and Tier 1 fire pump engines can demonstrate compliance by purchasing an engine that is certified to meet the nonroad emission standards for the model year and maximum engine power of the engine. Other information such as performance test results for each pollutant for a test conducted on a similar engine; data from the engine manufacturer; data from the control device vendor; or conducting a performance test can also be used to demonstrate compliance with the emission standards. The records which indicate that the engine is complying with the emission standards of the final rule must be kept on file by the owner or operator of the engine and be available for inspection by the enforcing agency. Engine manufacturers and/or control device vendors may provide such information at the time of sale. Manufacturers that provide such information to their customers may also choose to place a label on the engine that indicates the engine meets the applicable standards for stationary CI ICE under 40 CFR part 60, subpart III,

as long as the label does not violate or otherwise interfere with other labels or requirements mandated by other regulations. If the owner or operator chooses to conduct a performance test to demonstrate compliance with the final rule, the test must be conducted according to the in-use testing procedures of 40 CFR 1039, subpart F.

Starting with 2007 model year engines with a displacement of less than 30 liters per cylinder, owners and operators of engines that are not fire pump engines are required to demonstrate compliance by purchasing an engine certified to meet the applicable emission standard for the model year and maximum engine power of the engine. Certified fire pump engines will be available between 2008 and 2011, depending on the size of the engine. For 2007 model year and later fire pump engines that are not required to be certified, owners and operators can demonstrate compliance using the procedures specified for pre-2007 model year engines. Beginning with the model years shown in table 3 to the final rule, owners and operators of fire pump engines must purchase certified engines.

If in-use testing is conducted, the owner and operator of engines with a displacement of less than 30 liters per cylinder would be required to meet not-to-exceed (NTE) emission standards instead of the standards in tables 1 and 2 of this preamble. Engines that are complying with the emission standards in 40 CFR part 1039 (Tier 4 standards) must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d) starting when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039. Engines that are complying with the emission standards in 40 CFR 89.112 (Tier 2/3 standards), and engines that are pre-2007 model year engines must meet the NTE standards in Equation 1 of this preamble:

$$\text{NTE} = (\text{STD}) \times (\text{M}) \quad (\text{Eq. 1})$$

Where:

NTE = The NTE emission standard for each pollutant.

STD = The certification emission standard specified for each pollutant in table 1 or 2 of this preamble for the same model year and maximum engine power.

M = 1.25

Alternatively, stationary CI ICE that are complying with the emission standards in 40 CFR 89.112 or that are pre-2007 model year engines may use

the testing procedures specified for engines with a displacement of greater than or equal to 30 liters per cylinder, described in the next paragraph, instead of the NTE provisions discussed above.

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct an initial performance test to demonstrate compliance with the emissions reductions requirements, establish operating parameters and monitor operating parameters continuously. Non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder must also conduct annual performance tests. The NTE standards do not apply to engines that have a displacement of greater than or equal to 30 liters per cylinder. Testing conducted on these engines must be performed to demonstrate that NO<sub>x</sub> and PM emission standards are achieved, and the tests must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

### G. What are the monitoring requirements?

Owners and operators of stationary CI ICE that are equipped with catalyzed diesel particulate filters (CDPF) must install a backpressure monitor that will notify the operator when the high backpressure limit of the engine is approached. All emergency stationary CI ICE must have a non-resettable hour meter to track the number of hours operated during any type of operation.

### H. What are the reporting and recordkeeping requirements?

The owner or operator of non-emergency stationary CI ICE that are greater than 3,000 HP or with a displacement of greater than or equal to 10 liters per cylinder, and non-emergency stationary CI ICE pre-2007 model year engines greater than 175 HP and not certified, must submit an initial notification. The initial notification must contain information identifying the owner or operator, the engine and control device, and the fuel used. As mentioned, engines that are not certified have various options for demonstrating initial compliance, which would be documented in records available on-site. Also, all owners and operators must keep records of all information necessary to demonstrate compliance with the emission standards such as records of all notifications submitted, any maintenance conducted on the engine, any performance tests conducted on the engine (or performance tests conducted on a similar engine that is used to

demonstrate compliance), engine manufacturer or control device vendor information, *etc.* Owners and operators of certified engines must keep records of documentation from the manufacturer that the engine is certified to meet the emission standards. Owners and operators of engines that are equipped with CDPF must install a backpressure monitor and are required to maintain records of any corrective action taken after the backpressure monitor has notified the owner or operator that the backpressure limit is approached. These records must be available for viewing upon request by the enforcing agency. Owners and operators of emergency engines are not required to submit initial notifications. However, these engines must have a non-resettable hour meter. Owners and operators of emergency engines are required to keep records of their hours of operation. Owners and operators must record the time of operation of the engine and the reason the engine was in operation during that time.

### III. Summary of Significant Changes Since Proposal

Most of the rationale used to develop the proposed rule remains the same for the final rule. Therefore, the rationale previously provided in the rule, as proposed, is not repeated in the final rule, and the rationale sections of the rule, as proposed, should be referred to. Changes that have been made to the rule since proposal are discussed in this section with rationale following in the Summary of Responses to Major Comments section.

#### A. Applicability

The final rule includes an exemption for engines used at test cells/stands.

The final rule also exempts area sources from title V permit requirements.

#### B. Fuel Requirements

The proposed rule required the same fuel requirements for all engines, except engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands. The final rule does not require owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder subject to the rule that use diesel fuel to meet the 15 ppm fuel sulfur requirements. Owners and operators of these engines are subject to the 500 ppm fuel requirements only, starting October 1, 2007.

In addition, EPA received comments on the proposal requesting that EPA delay the sulfur requirements for diesel fuel intended for stationary ICE in rural

areas of Alaska until 2010, consistent with the approach that was expected to be proposed for nonroad and highway engines in rural Alaska. EPA believes it is appropriate to address stationary, highway and nonroad fuel requirements in one rule where all issues can be addressed and resolved. Therefore, on October 13, 2005 (70 FR 59690), EPA proposed to revise the provisions of 40 CFR part 69 (Special Exemptions from the CAA) to delay low sulfur fuel requirements for rural areas of Alaska until December 1, 2010, except that certain engines, including any 2011 model year and later stationary CI engines operating in rural Alaska prior to December 1, 2010, would be required to meet the 15 ppm sulfur requirement for diesel fuel. EPA has included a special section in the final rule that specifies that until December 1, 2010, owners and operators of stationary CI engines located in Alaska should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

In addition, the final regulations include language that allows Alaska to submit for EPA approval through rulemaking process, by no later than January 11, 2008, an alternative plan for implementing the requirements of this regulation for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. The alternative plan must be based on the requirements of section 111 of the CAA including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR Part 60, Subpart III.

EPA has included an option in the final rule for owners and operators of pre-2011 model year engines located in remote areas of Alaska to petition the Administrator to use any fuels mixed with used oil that do not meet the fuel requirements in § 60.4207 of the final rule beyond the required fuel deadlines. The owner or operator must show that there is no other place to burn the used oil. Each petition, if approved, is valid for a period of up to 6 months.

EPA has clarified that the fuel requirements in § 60.4207 of the final rule only apply to stationary CI ICE that are subject to the rule, and do not apply to new engines manufactured prior to April 1, 2006, unless they have been modified or reconstructed after July 15, 2005.

#### C. Maintenance and Testing

The proposed rule limited the use of emergency engines for the purpose of maintenance and testing to 30 hours per year. This limit has been increased in the final rule to 100 hours per year. EPA has also included a provision that allows anyone to petition the Administrator for additional hours, beyond the allowed 100 hours per year, if such additional hours should prove to be necessary for maintenance and testing reasons. EPA will not require a petition for additional hours if the hours beyond 100 hours per year for maintenance and testing purposes are mandated by regulation such as State or local requirements.

#### D. Emission Standards

The emission standards for engines with a displacement of greater than or equal to 30 liters per cylinder in the final rule are different than in the rule, as proposed. EPA received comments that the proposed PM standards and the proposed NO<sub>x</sub> g/KW-hr standard were not achievable. EPA revised the standards for the final rule and believes the final levels are achievable through the use of on-engine controls, aftertreatment, and lower sulfur fuel.

#### E. Recordkeeping

For emergency engines, EPA proposed that owners and operators record the use of the engine during non-emergency operation. These hours would be recorded through the non-resettable hour meter. Based on comments received on the rule, as proposed, EPA has determined that it is appropriate to require records of all operation, including hours operated during non-emergencies and hours operated during emergencies. The owner must also record the time of operation of the engine and the reason the engine was in operation during that time.

### IV. Summary of Responses to Major Comments

A more detailed summary of comments and EPA's responses can be found in the Summary of Public Comments document, which is available from the rulemaking docket (*see ADDRESSES* section).

#### A. Applicability/Effective Date

*Comment:* One commenter expressed that the 6-month installation date deadlines in § 60.4208 of the proposed rule are problematic and unworkable. The period of time between the manufacture of a stationary CI engine and its installation is regularly in excess of 6 months. The NSPS should incorporate the relevant anti-stockpiling



from the nonroad rule (40 CFR 89.1003(b)(4)) instead.

Another commenter said that § 60.4208(a) of the proposed rule does not exclude fire pumps (emergency CI ICE), but § 60.4208(c) through (f) of the proposed rule does. A 6-month time limitation will become problematic, the commenter said. Due to construction project complexities, size and delays, NFPA certified fire pump engines may not be installed for as long as 1 year after the date of sale by the NFPA certifier. The NFPA certified fire pump engines are typically not purchased for inventory, and therefore, are self regulated by the date of manufacturer. The commenter stated that fire pump engines should be exempt from this fixed time restriction.

*Response:* EPA agrees with the commenters that the 6-month deadline for installing engines of a previous tier is not long enough to allow for the time that typically elapses between order and installation of an engine and may prevent engine manufacturers from using up existing inventories of engines. Therefore, EPA increased the time limit to 24 months after the beginning of the model year. EPA has also included anti-stockpiling provisions similar to those used for nonroad engines to prohibit stockpiling of previous tier engines in the final rule. Also, EPA was concerned about imports of non-compliant stationary CI engines and has made it clear in § 60.4208 of the final rule that the limitations of that section apply to imports of engines with a displacement of less than 30 liters per cylinder also. Engines with a displacement greater than or equal to 30 liters per cylinder are not included in this provision since compliance with the emission standards for those engines can only be demonstrated through on-site stack testing. Finally, EPA has exempted stationary emergency fire pump engines from the deadlines in § 60.4208(a) and (b) of the final rule to account for the fact that fire pumps have different timing requirements for the emission standards they have to meet.

*Comment:* One commenter requested that the rule exempt area sources from the requirement to have a title V permit solely because of the presence of an affected engine.

*Response:* Section 502(a) of the CAA specifies the sources that are required to obtain operating permits under title V. These sources include (1) any affected source subject to the acid deposition provisions of title IV of the CAA, (2) any major source, (3) any source required to have a permit under parts C or D of title I of the CAA, (4) "any other source (including an area source) subject to

standards under section 111 (new source performance standards) or 112 (national emissions standards for hazardous air pollutants)," and (5) any other stationary source in a category designated by regulations promulgated by the Administrator.

Section 502(a) of the CAA also provides that the Administrator may "promulgate regulations to exempt one or more source categories (in whole or in part) from the requirements of this subsection if the Administrator finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories, except that the Administrator may not exempt any major source from such requirements." EPA has exempted many area sources subject to section 111 or 112 standards from title V requirements in prior rulemakings, in particular see a recent final rule, 70 FR 75320, December 19, 2005, that provides additional background information and rationale for such exemptions for a large number of area sources subject to CAA section 112 standards.

In the case of affected stationary CI engines located at area sources, EPA believes compliance with permit requirements under title V would be impracticable, infeasible and unnecessarily burdensome for the reasons explained below.

First, title V permits would be unnecessarily burdensome for area sources subject to this final rule because title V would not result in significant improvements to compliance with the CAA section 111(b) standard for the area sources. (The term "title V permits" used here refers to permits issued under 40 CFR parts 70 or 71 by either a State or local agency or EPA.) For a great number of these area sources, these engines are the only emission source and the owner/operator (often a hospital or a school) will not be at all familiar with the requirements for permits. To demonstrate compliance with these section 111(b) standards, the final rule requires the owner or operator of the area source to purchase a certified stationary CI engine. Certification that the engine meets the emission reduction requirements of this final rule is done by the manufacturer of the engine, rather than the area source that owns or operates the engine. This strategy places a significant amount of responsibility for compliance with the standard on the manufacturer, compared to many other emission standards that place the compliance responsibility on the owner or operator. EPA believes this strategy is the most effective way to ensure that the standard is met during the useful life of the engine. Also, title V would not

result in significant improvements to compliance with the standard for these area sources because the section 111(b) standard itself contains adequate compliance requirements for these area sources, consistent with the CAA, without relying on title V.

Second, title V would impose certain burdens and costs on area sources subject to this final rule that EPA does not believe are justified when compared to the potential for title V permits to improve compliance with the CAA section 111(b) standards for such sources. This is so because EPA believes the costs and burdens of title V permits for the typical area sources subject to this final rule would be significant. This assessment is not based on any particular empirical data or study but on a review of the types of stand-alone area sources that would be subject to the final rule, for example, small farming operations using diesel engines for irrigation purposes and small businesses and residential homeowners using diesel engines for back-up electrical power generation. (See current ICR for 40 CFR part 70, EPA ICR # 1587.06 and OMB control number 2060-0243 for EPA's best estimate of the burdens and costs of title V for sources subject to 40 CFR part 70 on a national, aggregate basis.) Also, as explained above, EPA's judgment is that requiring operating permits for these area sources would not result in significant improvements to compliance over that already required by this final rule. Thus, the burdens and cost of title V permits for these area sources would be significant, and in any case, they will be unnecessary and not justified, when compared to the low potential for title V permits to improve compliance, consistent with the "unnecessarily burdensome" criterion of section 502(a) of the CAA.

The strategy of this final rule, requiring the manufacture of cleaner burning emission sources (manufacturer-based controls), has been employed in other CAA section 111 standards, for example, the NSPS for new residential woodstoves (subpart AAA of 40 CFR part 60). We exempted area sources subject to the woodstove NSPS in the final rule for 40 CFR part 70 (57 FR 32250, July 21, 1992) for reasons similar to those we describe today for stationary CI IC engines. (40 CFR 70.3(b)(4) and 40 CFR 71.3(b)(4).)

Thus, we have decided to exempt area sources subject to this final rule from title V operating permit requirements under 40 CFR part 70 and 40 CFR part 71, and we have changed the applicability language in the final regulations to specify this. Under this approach, title V exemptions are

allowed for an area source, provided the area source is not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for another reason, such as when the source becomes a major source. Also note that this exemption only affects whether an area source is required to obtain an operating permit, it has no bearing on any other requirements of this final rule.

#### *B. Modeling Mobile Source Program*

*Comment:* Two commenters stated that the proposed standard layers mobile source requirements with similar 40 CFR part 60 requirements. These mobile legacy provisions, such as the General Provisions and testing requirements for nonroad engines, are foreign to stationary source operators. Two commenters said that a rule modeled after mobile standards is unnecessarily complex and includes requirements that are inconsistent with the legacy of stationary sources affected under 40 CFR part 60. One commenter was concerned that an array of unforeseen implementation issues could arise in translating the mobile source criteria to stationary sources.

One commenter said that the limits are based upon the engine model year and could lead to confusion. Limits for stationary sources have in the past been based upon the date of construction or operation. Two adjacent facilities may install identical engines manufactured by different companies and are of different model years. These engines could be subject to different limits. The facility that is subject to the more stringent limits may challenge the fairness of the limits and the cost to comply with the more stringent limits. This can be avoided by establishing limits based upon the date a source commences operation. The commenter added that compliance with NSPS limits is primarily based upon manufacturer guarantees. This is a new regulatory strategy for stationary sources. The New York (NY) Department of Environmental Conservation (DEC) issues permits to facility owners/operators, which are contracts whereby the permittee agrees to comply with all applicable provisions. Manufacturers are not parties to permits issued by the NY DEC. Any violation of a permit condition is, therefore, the responsibility of the permittee. Any enforcement action initiated by the NY DEC would be against the permittee, not the manufacturer. The NY DEC's distributed generation rule (6 NYCRR part 222) is structured in this way. If an engine is not in compliance with the limits, the owner/operator may have

legal recourse against the manufacturer depending upon the conditions of a warranty. The NY DEC, not being a party to a warranty, would not have legal recourse against the manufacturer. This commenter recommended that the owner/operator be responsible for compliance with emission limits under the NSPS.

*Response:* EPA disagrees with these commenters on certain issues. EPA agrees that aligning the NSPS with mobile standards and placing significant responsibility with manufacturer is somewhat unusual, but it is not an unprecedented regulatory strategy for stationary sources (40 CFR part 60, subpart AAA, Standards of Performance for New Residential Wood Heaters). EPA has determined that it is appropriate to develop a regulatory strategy for internal combustion engines that is generally directed towards engine manufacturers. EPA recognizes that the proposed approach is different than the strategy typically followed in NSPS rulemaking for stationary sources, which is often aimed at the owners and operators of stationary sources. However, EPA has worked with engine manufacturers throughout the rule development process, and it was determined that developing a rule that will affect engines at the manufacturing level, will achieve the best system of emission reduction while taking into account the cost of achieving such reductions. The certification of nonroad diesel engines is a well-established program that engine manufacturers are familiar with. Engine manufacturers have indicated that they often design and manufacture the same engines for nonroad use as for stationary use. As mentioned in the preamble to the proposed rule, the vast majority of stationary CI engines are consumer products produced in mass quantities. Internal combustion engines have traditionally been regulated through the manufacturer for purposes of meeting mobile source regulations. Manufacturers have extensive experience with complying with such standards. It is also simpler, more reliable, and comparatively inexpensive to regulate stationary CI engines employing the same approach as for mobile sources than to create a new approach based on testing by every owner and operator.

Moreover, EPA believes this method of regulation will be much easier for owners and operators (represented by the commenters) than a set of regulations aimed primarily at owners and operators. The commenters note that the proposed standards layer mobile source requirements on 40 CFR

part 60 requirements, but EPA's mobile source regulations are directed towards manufacturers, so they will not substantially affect owners and operators. In general, owners and operators will be required to purchase certified engines, which are likely to be the only new engines available, since manufacturers will not be able to sell uncertified engines. This would seem to be preferable from an owner/operator's perspective than having to individually test all of its new engines initially and periodically thereafter to show compliance with the standards, and to engage in all of the other compliance procedures normally required for stationary sources. While EPA acknowledges that this approach is one with which stationary source owners and operators may not be accustomed, EPA believes that this approach will provide less burden to owners and operators than a more standard NSPS approach. Regarding the comments from NY DEC, EPA believes that because the owner/operator will be purchasing certified engines, it will know prior to purchase and installation the emission limits and costs for the engine. A manufacturer would not be selling identical engines for different model years unless the engine met the standards for both model years, so there would be no increased cost for the user. Unlike in other regulations, the emission-related costs are known from the outset, because they are inherent in the cost of the certified engine. The NSPS should have no effect on the manner in which NY DEC ensures compliance with its distributed generation rule. However, as discussed below, owners and operators do have responsibilities under the NSPS, compliance with which can be readily determined. EPA agrees that it would be appropriate to specify what parts of the General Provisions apply to engines subject to subpart III of 40 CFR part 60. In the final rule, EPA has included a table listing which General Provisions from 40 CFR part 60, subpart A, apply to stationary CI engines subject to this subpart.

#### *C. Fuel Requirements*

*Comment:* One commenter stated that no operating experience currently exists for engines with a displacement of greater than or equal to 30 liters per cylinder with 15 ppm sulfur fuel, and therefore, an alternative should be worked out. The use of ULSD may have impacts on safety, reliability and durability of the stationary engine. At the current stage of technology, engine manufacturers will not be able to guarantee an engine operating

exclusively on ULSD. According to the European Union (EU) Directive 1999/32/EC, the maximum sulfur content of heavy fuel oil is a maximum of 1 weight percent (10,000 ppm) from January 1, 2003, and in gas oil a maximum of 0.1 weight percent (1,000 ppm) from January 1, 2008. These fuels can be used in stationary CI engine plants without installed flue-gas desulfurization. According to the EU 2001/80/EC Directive, a maximum of 0.5 weight percent sulfur (850 milligrams per Normal (273.15 °Kelvin, 101.3 kilo Pascal (kPa)) cubic meters (mg/Nm<sup>3</sup>) SO<sub>2</sub> at 3 percent oxygen (O<sub>2</sub>) and 280 mg/Nm<sup>3</sup> SO<sub>2</sub> at 15 percent O<sub>2</sub> fuel oil can be used in 50 to 100 megawatt (MW) boiler plants. Large CI engines are designed to operate on heavy fuel oil and the use of ultra clean light fuel oils (with different density, viscosity, etc., properties) may cause operation problems. The commenter requested that for large engines the requirement should be equivalent to 500 ppm after 2010 on the U.S. mainland. The commenter also stated it was reasonable for EPA to exempt Guam, American Samoa and the Commonwealth of the Northern Mariana Islands from fuel limits.

Another commenter expressed that additional time may be necessary to phase in the use of ULSD with respect to new engines with a displacement of 30 liters per cylinder or greater.

*Response:* EPA requested comments on whether owners and operators of stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder should be required to use ULSD fuel. There is no information regarding the effect of burning 15 ppm sulfur fuel in stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder and operators of these engines have expressed concerns with burning such fuel. Manufacturers of engines with high displacement have told EPA that there is a large variety of fuels used in these engines and that the fuel used can contain a high sulfur content. The fuels used in large displacement engines are of a different grade than the fuels used in nonroad engines. Information EPA has received indicates that engines with a displacement of greater than or equal to 30 liters per cylinder are often designed to operate on residual fuels containing up to 5 percent sulfur, but that these engines can also operate on fuels with lower fuel content. Further information on this subject can be found in the docket (EPA-HQ-OAR-2005-0029-0146). EPA believes it would be inappropriate to require owners and operators of these engines to use ULSD

as the impacts of using such fuel are unknown. However, EPA does believe it is appropriate to require these engines to utilize fuel containing 500 ppm sulfur or less, consistent with the commenter's statement. The final rule has been written to require owners and operators of stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder to use 500 ppm sulfur fuel starting October 1, 2007. Owners and operators of stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder are not required to use 15 ppm sulfur fuel, but must use 500 ppm fuel from October 1, 2007, and beyond.

*Comment:* One commenter expressed that the proposed fuel requirements would be burdensome to some facilities that store and use large inventories of diesel fuel. To comply with the proposed fuel requirements, an owner or operator of stationary CI engines with large fuel inventories may have to dilute/blend existing diesel fuel inventories with fuel that is virtually sulfur-free prior to each compliance date in § 60.4207 of the proposed rule, and sample/analyze the blended fuel for sulfur content, and cetane index or aromatic content to document compliance with the fuel content requirements. Sources with large fuel inventories may require dilution quantities that exceed the existing storage tank capacities, and diluting/ blending would be an expensive task. Diluting/blending fuel to meet these requirements would require the procurement of diesel fuel that has a sulfur content and cetane index or aromatic content that would be much more stringent than the specified fuel sulfur content standards. As an alternative, owners/operators would have to deplete existing diesel fuel inventories completely prior to each compliance date and then purchase fuel that meets the requirements of 40 CFR 80.510(a) and (b) for just-in-time fuel delivery prior to each compliance date. This alternative is not reasonable for owners/operators that operate 24 hours a day. Also, depleting inventories to zero potentially would cause owners/operators to have to clean/remove tank bottoms to prevent fouling of fuel lines and equipment, and to have to dispose of off-specification diesel fuel, producing additional costs. The commenter requested that EPA include a grandfather clause that would allow owners/operators to continue to use up existing fuel inventories after October 1, 2007, and October 1, 2010.

Alternatively, EPA could revise § 60.4207(a) and (b) of the proposed rule

by replacing the word "use" with "purchase."

*Response:* EPA believes it is providing sufficient time for owners and operators to switch to using lower sulfur fuel. Substantial amounts of fuel meeting the fuel requirements will be available in the years and months prior to implementation of the fuel requirements. However, EPA understands that there may be cases where sources may be unable to use up existing non-compliant fuel inventories prior to the fuel compliance dates of the rule. EPA does not think it would be appropriate to include an open-ended provision allowing owners and operators to use up existing non-compliant fuel inventories after October 1, 2007 and October 1, 2010. Also, EPA does not believe it would be appropriate to use the word "purchase" instead of "use" in § 60.4207 of the rule. A more reasonable provision, which takes into account that there may be varying volumes of existing fuels from site to site, would be for the owners and operators to petition the Administrator for additional time beyond the schedule set in the final rule to use up existing non-compliant fuels. EPA believes that a case-by-case approach to dealing with existing fuel inventories is more appropriate and will incorporate the uniqueness of each source's fuel inventory situation. EPA has incorporated a provision into the final rule that allows owners and operators that have stationary CI engines subject to the rule to petition the Administrator for additional time to use up existing fuel inventories. If approved, the petition is valid for a period of up to 6 months. If additional time is needed beyond that, the owner or operator would have to submit another petition to the Administrator. Also, EPA does not believe such a provision should be included for engines built after 2011 as these stationary CI engines will require the use of ULSD in order to operate properly. Therefore, the final rule includes the provision to petition the Administrator to use up existing non-compliant fuel for a period of 6 months only for pre-2011 model year stationary CI engines.

#### D. Maintenance and Testing

*Comment:* Several commenters said that the testing and maintenance allowance for emergency engines in the proposed rule was not sufficient. Many commenters recommended revising the definition of emergency engines to be consistent with 40 CFR part 63, subpart ZZZZ, for stationary RICE. Commenters recommended various maintenance and testing allowances. One commenter

recommended a minimum of 8 hours per month or 96 hours per year. One commenter encouraged EPA to either exempt hospitals, categorically from the restrictions, or apply a reasonable allowance of combined total operations of all emergency generators per hospital facility to 2,000 hours per year. Four commenters recommended that EPA specify 100 hours per year instead, as a maximum for maintenance and readiness testing. Some commenters recommended that regulatory agencies could establish site-specific limits for maintenance checks and readiness testing. One commenter recommended allowing hospitals to petition for an exemption raising the limit beyond 100 hours as a permanent exemption or a one-time exemption. One commenter recommended limiting maintenance and testing activities to 78 hours per year. One commenter said that the operation of an emergency engine should be at the discretion of the owner or operator, based on the engine manufacturer's recommendations and any applicable health and safety codes. The commenter believed this requirement is unnecessary because non-emergency engines will be allowed to operate without any hourly limitations.

*Response:* As summarized above and in more detail in the Summary of Public Comments document, EPA received several comments on the issue of maintenance and testing of stationary emergency engines. EPA proposed to limit the time emergency engines spend during maintenance and testing to 30 hours per year, based on information available at the time of proposal indicating that 30 hours per year would be sufficient to address operation for such activities. For example, NFPA requirements stipulated 30 minutes per week (27 hours per year) for maintenance and testing purposes to ensure that the engine would respond properly in the event of an emergency. A survey conducted by the California (CA) Air Resources Board (ARB) indicated that emergency engines spend on average of about 30 hours per year for all operation. The proposed limit of 30 hours per year for maintenance and testing for stationary emergency CI engines was also consistent with the CA Airborne Toxic Control Measure (ATCM). Since the proposal of the rule, CA increased the maintenance and testing limit based on new information it had received, which indicated that more frequent testing was required by certain healthcare regulatory bodies. Local air districts in CA are allowed to approve additional hours of operation for maintenance and testing beyond 30

hours per year, and the ATCM also includes a sliding scale based on the PM levels the engine emits, of up to 100 hours per year. Considering the extent to which commenters provided information indicating that the proposed 30 hours per year allowance was not sufficient for most emergency engines, EPA has determined that it is appropriate to allow emergency engines to operate 100 hours per year during maintenance and testing. It is crucial to allow owners and operators of emergency engines to sufficiently test and maintain their emergency engines to ensure the engines will respond properly and as expected during an emergency situation. The engines must respond without failure and without lengthy periods of startup and adequate testing and maintenance must therefore be performed. Based on the comments received, EPA believes that 100 hours per year is a sufficient amount to ensure readiness of emergency engines in most cases. The final rule has been written to limit operation of emergency engines to 100 hours per year during maintenance and testing operation. In addition, EPA believes that there may be cases where it is necessary for an owner or operator of emergency engines to operate their emergency engines beyond 100 hours per year to ensure their engines will respond as needed during an emergency. Additionally, Federal, State or local safety standards may require maintenance and testing beyond 100 hours per year. Therefore, EPA has incorporated a provision into the final rule that allows owners and operators to petition the Administrator for approval to operate their emergency engines for more than 100 hours per year for maintenance and testing purposes. If a sufficient case is presented, the Administrator may approve such petitions for additional time to conduct maintenance checks and readiness testing to ensure that emergency engines can be used for their intended application during emergency situations. A petition is not required if an owner or operator can show that operation beyond 100 hours is required by regulation such as State or local requirements. EPA does not believe it is generally appropriate to allow unlimited hours for maintenance and testing, or hours well in excess of 100 hours, as suggested by some commenters, given the substantial emissions that can occur from these engines during their operation and the ability of owners and operators to meet their maintenance and testing needs under the final provisions. The California ARB presented in Table IV-1 of their Staff Report from 2003 that

PM and NO<sub>x</sub> emissions from emergency standby engines in 2002 were 0.3 and 6.4 tons per day, respectively. The maintenance and testing allowance in the final rule would include training for and simulation of emergency situations and EPA believes the 100 hours per year would be sufficient to account for such operation. Documented engine repair would also be considered maintenance and testing and the change from 30 to 100 hours per year should provide enough hours to make necessary repairs. Finally, peak shaving is not considered emergency use and EPA has clarified this in the definition of emergency engine in the final rule.

#### *E. Emission Standards*

*Comment:* One commenter stated that as was the case with the nonroad engines from which stationary CI engines are derived, it remains the case that less stringent standards are necessary for non-generator engines greater than 750 HP.

One commenter said that EPA should set stringent NO<sub>x</sub> emissions standards for all engines greater than 750 HP that are based on the use of add-on control technologies. The commenter estimated that stationary diesel engines greater than 750 HP make up about 20 percent of the total stationary engine population, but account for more than half the total emissions of NO<sub>x</sub>. The commenter has seen enough successful examples of the use of selective catalytic reduction (SCR) to control NO<sub>x</sub> emissions from stationary engines to conclude that EPA should base its NO<sub>x</sub> emissions standards for these engines on the use of add-on controls. EPA describes in docket information that SCR has been successfully installed in several applications based on State and vendor information. Several additional add-on NO<sub>x</sub> controls that are under development are described in the docket as well; NO<sub>x</sub> adsorbers, ozone injection and lean NO<sub>x</sub> catalysts. While these technologies are not commercially available yet, they could become viable options within the timeframe of these standards. The commenter believed the current use of SCR and the other available options for add-on NO<sub>x</sub> control support the more stringent standards. The commenter is not aware of any special issues with add-on controls on non-generator stationary engines. The commenter believed the issues would be no different than those associated with stationary generator sets and, therefore, saw no reason to set more lenient standards.

One commenter believed that NO<sub>x</sub> standards for non-generator, stationary engines with HP ratings of greater than

750 should be equivalent to NO<sub>x</sub> standards proposed for generators. Selective catalytic reduction systems have already been installed on stationary engines in this size range and can provide high efficiency NO<sub>x</sub> reductions in a cost effective manner. The commenter believed that installation issues with SCR on non-generator engines are no different than those associated with generator engines.

One commenter strongly urged EPA to set aftertreatment forcing NO<sub>x</sub> standards for all non-emergency engines with a displacement of less than 10 liters per cylinder and greater than 750 HP. The rationale for setting less stringent standards for nonroad engines other than generator sets were concerns about designing NO<sub>x</sub> adsorbers for the space constraints and physical stresses associated with mobile heavy equipment. These conditions do not apply to stationary engines. In the July 2004 nonroad rulemaking, EPA noted the use of SCR on stationary engines as a rationale for aftertreatment forcing NO<sub>x</sub> standards for mobile generator set engines.

Regarding EPA's request for comments on whether the generator standards for NO<sub>x</sub> should be applied for non-emergency engines greater than 750 HP, one commenter believed that the non-emergency generator engines should be limited to the same levels of emissions as other available ways to generate electricity from fossil fuel. The commenter recommended that limits for engines greater than 750 HP be as stringent as limits for non-emergency engines in sizes between 75 HP and 750 HP, because the larger engines should be able to achieve the same limit as smaller engines, and there is sufficient time to transfer technology to engines greater than 750 HP. If a large engine cannot achieve comparable emission levels, then cleaner equipment, such as turbines, should be used.

Two commenters made the comment that the requirement for add-on controls for engines above 750 HP with a displacement below 10 liters per cylinder should apply solely to continuously operating non-emergency generators.

*Response:* EPA proposed emission standards for non-emergency non-generators above 750 HP that were not based on the use of add-on controls for NO<sub>x</sub> and were less stringent than the proposed standards for generator sets above 750 HP. These standards were consistent with nonroad standards for the same size engines. EPA solicited comments on this issue in the preamble to the proposed rule and received the comments as summarized above. Based

on available information and comments received on this issue, EPA still believes it is appropriate to distinguish between non-generators and generators when finalizing standards for non-emergency stationary CI engines above 750 HP. EPA did not receive any specific information or data demonstrating that the standards applicable to generator sets are feasible for engines above 750 HP that are not generator sets. Engine manufacturers have repeatedly expressed that less stringent standards are necessary for non-generator set engines greater than 750 HP. Engine manufacturers have also repeatedly expressed the need to have standards for stationary engines that are consistent with the standards for nonroad engines. No change has been made to the final rule, which includes, as proposed, emission standards consistent with nonroad standards. The standards distinguish between non-generator sets and generator sets, and require less stringent levels for non-emergency engines that are not generator sets, based on improved combustion systems and engine-based NO<sub>x</sub> control technologies. (It should be noted that the PM standards for engines above 750 HP, both for generators and non-generators, will likely require particulate traps.)

*Comment:* As summarized in more detail in the Summary of Public Comments document, EPA received several comments on the proposed standards for engines with a displacement of greater than or equal to 30 liters per cylinder. One commenter said that the NO<sub>x</sub> standards for these engines would incur significant costs for the owner and operator, and for emergency engines make it impossible to operate the unit reliably when actually needed. The cost of installing and maintaining an SCR system for large CI engines is outrageously high, especially for applications in Alaska, according to the commenter. These control systems are only marginally cost effective for Alaska units that are meant to be operated continuously. The cost of SCR controls for emergency units outweighs the benefit of having large reliable emergency power available. A recent prevention of significant deterioration project rejected SCR due to high costs. Selective catalytic reduction subsystems must be kept instantly ready over a long period of time in standby mode. One important aspect is having the urea/water mixture heated to prevent freeze up during extremely low temperatures. The system is not simple and operators/mechanics have to be well trained. In most areas of Alaska,

such skilled labor is not available. Unless such large units are simple to maintain/operate, they will quickly fall into disrepair or become unusable in an emergency. For emergency engines, the technology that is proven to have the highest reliability while in standby mode should be used. Fuel Injection Timing Retard (FITR) is the technology. It reduces NO<sub>x</sub> by 15 to 20 percent, and has been demonstrated as the most cost effective for arctic conditions. FITR technology should also be allowed for engines with a displacement of greater than 10 liters per cylinder unless/until manufacturers establish a proven record of reliable readiness from cold start conditions. This may require delay of emission control requirements for an additional 3 years beyond current implementation dates.

This commenter also said that the PM limits in the proposed rule for engines with a displacement of greater than or equal to 30 liters per cylinder are unrealistic, and there are no current control technologies that are "available" to meet these standards. There have been no applications of electrostatic precipitators (ESP) to stationary sources in the U.S. to date (based on RACT/BACT/LAER Clearinghouse, September 1, 2005). A currently available technology, particulate filter traps, is suited to these large units, although PM removal is less than 60 percent. The commenter noted that PM emissions will already be reduced considerably by the use of low sulfur diesel (LSD) and ULSD. When the reduction from using low sulfur fuel is considered, an additional 50 percent overall reduction from particulate trap technology will meet EPA's goal of reducing PM emissions nationwide. Requiring the use of ESP for emergency units undermines unit reliability and would increase unit size. Approximately 10 percent of the power generated by an emergency CI ICE would be used solely to power an ESP. This would cause all such emergency units to be resized at an increased capacity. The commenter recommended a 50 percent PM reduction or an emission limit of 0.15 g/KW-hr (0.113 g/HP-hr).

Another commenter provided several comments on the proposed standards for engines with high displacement. The commenter stated that environmental impacts and cost effects have not been evaluated and efficient add-on abatement techniques (SCR for NO<sub>x</sub>, etc.) will always be needed as a result of the proposal. Only a small number of large CI ICE are sold per year to the U.S. and, therefore, one can forecast that the environmental impact of these engines with respect to the total emissions in the

U.S. is small. The commenter said that in the U.S. territories there are several of these engines, e.g., in Puerto Rico there is a 20 MW electric (MWe) plant and in Guam there is an 80 MWe plant. The proposed limits will raise the electricity produced in these power plants considerably. This might have impacts on the small governmental jurisdiction area flexibility and have significant adverse affect on the supply of energy. This would be in contradiction to the Regulatory Flexibility Act and Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution or Use. The commenter said that the proposed NO<sub>x</sub> limit of 0.4 g/KW-hr (0.30 g/HP-hr) equates to about 50 mg/Nm<sup>3</sup> (at 15 percent oxygen (O<sub>2</sub>)) and is very strict. This limit is much stricter than World Bank Guidelines or the United Kingdom (UK) limits as referred to in the proposed text. The World Bank NO<sub>x</sub> limit for non degraded air-sheds is 2,000 milligram per normal cubic meter (mg/Nm<sup>3</sup>) and in degraded air-sheds 400 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>) (about 3.1 g/KW-hr). In the UK, the NO<sub>x</sub> limits are: 1,300/1,400 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>) (about 10.1/10.9 g/KW-hr) (light fuel/heavy fuel oils) for plants less than 50 MW and 200–300 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>) (about 1.6–2.3 g/KW-hr) for oil fired plants greater than 50 MW. Extensive research and development work with NO<sub>x</sub> emissions from large liquid fired CI ICE has reduced emissions remarkably by primary measures (typically 30 to 35 percent) during the last decade. Primary methods are low NO<sub>x</sub> combustion focusing on optimizing: Closing timing of inlet valve, design of fuel injection equipment on the engine, new camshaft, etc. The proposed limit means in practice that SCR is always needed. Selective catalytic reduction needs a reagent aqueous urea/ammonia or pure ammonia to work, and lack of the reagent delivery infrastructure in certain areas will make the proper use of SCR impossible. In order to give industry an incentive to develop new cost-effective primary methods and to continue the positive development in the past decade, the proposed limit should be more realistic based on the zoning approach (attainment/non-attainment area, mainland U.S./other areas). This commenter made some recommendations for acceptable NO<sub>x</sub> and PM emission limits, which can be found in the Summary of Public Comments document. The commenter stated that the proposed PM limit of 0.12 g/KW-hr (0.09 g/HP-hr) equals about 16 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>).

This is a very strict limit, much stricter than the British and World Bank limits, which are 50 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>) (about 0.38 g/KW-hr) for large CI plants and 100 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>) (about 0.75 g/KW-hr) for smaller CI plants. The ESP is bulky and has a high investment cost. In the Integrated Pollution Prevention and Control Reference Document on Best Available Techniques for Large Combustion Power Plants (BREF) document for large combustion installations, it states that “Due to the different temperature and oxygen content of the diesel flue-gas, the electrical properties of the diesel particulates (e.g., resistivity, etc.) are different compared to particulates from a boiler flue-gas, and proper testing of the ESP (electrical precipitator) is needed to commercial release.” Only a few CI plants are equipped with ESP, and the technical availability of ESP needs to be evaluated case-by-case. In the European Integrated Pollution Prevention and Control, the best available technique is considered to be the use of low ash and low sulfur fuel. Particulate matter limits range from 30 to 50 mg/Nm<sup>3</sup> (at 15 percent O<sub>2</sub>) (about 0.23 to 0.38 g/KW-hr) depending on whether heavy or light fuel oil is used. The commenter recommended PM limits in line with the EU BREF document for large CI ICE plant stations (greater than 50 MW). For smaller CI ICE plants, the commenter recommended a PM limit according to the UK approach.

One commenter said that EPA must require stringent PM emissions limits for engines with a displacement of greater than or equal to 30 liters per cylinder. Particulate matter emissions from stationary diesel engines are associated with extremely serious health impacts, including premature mortality and cancer. It would be clearly arbitrary and capricious for EPA to exempt the very largest engines, which it recognizes as operating for thousands of hours per year, from protective control requirements for PM emissions. EPA is correct in its assessment that the cost of SCR to reduce NO<sub>x</sub> emissions from these engines is justified because they are so large and because the cost of SCR would be manageable in comparison to the cost of the engines themselves. Similarly, the size of these engines and the hazard posed by their emissions compels EPA to require them to achieve PM reductions that are at least as protective, if not greater than, those for smaller engines. EPA's proposal for these very large engines fails to meet the most basic requirement of section 111 of the CAA, that stringent emissions standards be applied to all sources

within the designated category. There is no evidence that a thorough technical analysis of cost or feasibility was performed for these large engines. EPA does not explain why particulate filters could not be developed to apply to these engines. Nor does it explain why ESP, the technology on which the 60 percent control requirement is based, could not be designed to work as effectively in this application as they are known to do in many others, and achieve reductions far in excess of 60 percent. The commenter urged EPA to remedy this deficiency in the final rule by promulgating more stringent control requirements for this class of very large, very highly polluting engines.

*Response:* EPA does not agree with the commenter that SCR control systems are not a feasible option for engines located in Alaska. There are at least three facilities in Alaska that have stationary engines equipped with SCR, see the memorandum entitled “Emission Standards for Engines with a Displacement of ≥30 Liters per Cylinder,” available from the rulemaking docket. EPA does not expect that there will be any emergency engines with a displacement greater than 30 liters per cylinder; however, to the extent that such units exist, they will be very substantial emitters during use and should be required to use the best technology available. In response to the commenter's statement regarding readiness testing, EPA has increased the maintenance and testing allowance for emergency engines from 30 to 100 hours per year in the final rule, with the option to submit a petition for additional hours. EPA agrees in general with the comments regarding the proposed emission limitation for PM. The final rule has been written considering the comments received and requires 60 percent PM reduction or an emission limit of 0.15 g/KW-hr (0.11 g/HP-hr). EPA believes the PM standard will be achievable through the use of lower sulfur fuel, on-engine controls, and aftertreatment. EPA believes that the PM percent reduction requirement is feasible through application of ESP. Based on information EPA has received, the technology is capable of reducing PM by 60 percent. Other information indicates that the technology could reduce PM by even more; from 55 to 85 percent when operating on heavy fuel oil, see information in the docket.

EPA does not agree with the commenter that EPA did not evaluate costs and environmental impacts. EPA has provided detailed analyses of the expected costs of this regulation and the expected emission reductions and benefits and evaluated the technology

for this rule based on best demonstrated technology, not lowest achievable emission rate. EPA evaluated the environmental and economic impacts of the best demonstrated control technologies, which are documented in a memorandum included in the docket entitled "Emission Standards for Engines with a Displacement of  $\geq 30$  Liters per Cylinder." While there are few CI ICE with a displacement of greater than or equal to 30 liters per cylinder, they are individually very large emitters of pollutants. Moreover, in regulating criteria pollutants such as ozone and PM, it is assumed that the emissions come from numerous different sources whose individual contribution may be relatively small. Further, as noted in the analyses, there are benefits from these standards in attainment areas, and these national regulations are designed to provide protection from pollution occurring in all areas of the country, not merely nonattainment areas. EPA does not believe that the final emission standards will have a significant adverse effect on the price of electricity and the supply of energy, and the commenters did not provide any data to support this assertion. While EPA disagrees with much of the commenter's statements, EPA has evaluated all comments received on this matter and agrees with the comments that the proposed NO<sub>x</sub> g/KW-hr emission limitation and the proposed PM emission standards were too stringent. The final rule requires engines with a displacement greater than 30 liters per cylinder to reduce NO<sub>x</sub> emissions by at least 90 percent or meet a NO<sub>x</sub> emission limitation of 1.6 g/KW-hr (1.2 g/HP-hr), and to reduce PM emissions by at least 60 percent or meet a PM emission limitation of 0.15 g/KW-hr (0.11 g/HP-hr). There are several facilities worldwide that are successfully using ESP for PM control and specific examples of such installations can be found in the Summary of Public Comments document. Sources can also use other approaches, including traps, the use of lower sulfur fuel, and on-engine controls. The PM emission limit is consistent with comments received from one of the commenters. Regarding the NO<sub>x</sub> standard, SCR has been demonstrated as feasible for stationary CI ICE and is in use on several engines in the U.S. SCR technology is capable of achieving emission reductions of 90 percent or greater in many cases. EPA reviewed emission rates of stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder and based on an average uncontrolled

NO<sub>x</sub> emission rate from these engines of about 11.8 g/HP-hr, applying SCR with a reduction efficiency of 90 percent yields a controlled NO<sub>x</sub> emission rate of 1.2 g/HP-hr. EPA therefore believes the final standards for NO<sub>x</sub> are appropriate. Also note, that the commenter seems to concede that these standards are feasible, because the commenter accepts the proposed (more stringent) standards in nonattainment areas. EPA notes that this regulation applies only to new engines, not existing engines. The only engines manufactured prior to April 1, 2006, covered by this regulation are engines that are modified or reconstructed, as is required under the CAA. For further discussion regarding EPA's final standards for engines with a displacement greater than 30 liters per cylinder, see the memorandum entitled "Emission Standards for Engines with a Displacement of  $\geq 30$  Liters per Cylinder."

#### *F. Military Training Engines*

*Comment:* One commenter recommended that the rule exempt engines used in training and testing of military personnel in the operation, maintenance and repair of engines. These engines may have to be configured similarly to engines used by the U.S. or its allies in combat operations, which may make it difficult or impossible for them to comply with the NSPS.

*Response:* EPA agrees that it is appropriate to exempt engines used for military purposes. A national security exemption exists already (see, e.g., 40 CFR part 89 subpart J). Engines meeting the conditions specified in 40 CFR 89.908, and the corresponding provisions in parts 94 and 1068, will be considered exempt from the regulations for stationary CI ICE. An engine that receives the national security exemption under the non-road engine provisions when purchased will continue to be exempt if used as a stationary ICE, as long as it continues to be used for national security purposes. In addition, engines that receive a national security exemption will also be exempt from the fuel requirements in section 60.4207 of the final regulations. EPA believes that these provisions address the commenter's concerns.

### **V. Summary of Environmental, Energy and Economic Impacts**

#### *A. What are the air quality impacts?*

The final rule will reduce NO<sub>x</sub> emissions from stationary CI ICE by an estimated 38,000 tpy, PM emissions by about 3,000 tpy, non-methane hydrocarbon (NMHC) emissions by

about 600 tpy, SO<sub>2</sub> emissions by an estimated 9,000 tpy, and CO emissions by approximately 18,000 tpy in the year 2015. Reductions are presented for the year 2015 because it is the model year for which certified stationary CI ICE would have to meet the final Tier 4 emission standards. EPA estimates that approximately 81,500 stationary CI ICE will be affected by the final rule in the year 2015. Of these, EPA estimates that 20 percent are used in non-emergency applications. EPA expects very few stationary CI ICE with a displacement of 30 liters per cylinder or more to be installed per year, and no emissions or emissions reductions have been estimated for these engines. A secondary impact of the final rule is the reduction of HAP that will result from the use of CDPF. EPA estimates that emissions of HAP will be reduced by approximately 93 tons in the year 2015.

The final rule will reduce NO<sub>x</sub> emissions from stationary CI ICE by an estimated 270,000 tpy, PM emissions by about 17,000 tpy, NMHC emissions by about 8,000 tpy, SO<sub>2</sub> emissions by an estimated 24,000 tpy, and CO emissions by approximately 95,000 tpy in the year 2030. EPA estimated emissions reductions for the year 2030 because it is expected that almost all of the air quality impacts will be incorporated by that year, given turnover of old engines.

#### *B. What are the cost impacts?*

The total costs of the final rule are mostly based on the cost associated with purchasing and installing NO<sub>x</sub> adsorber and CDPF controls on non-emergency stationary CI ICE. A smaller portion of the total costs are attributed to the cost of reporting and the cost for performance testing for a portion of the pre-2007 model year engines. The cost of NO<sub>x</sub> adsorber and CDPF were based on information developed for the nonroad rule for diesel engines. EPA expects that very few stationary CI ICE with a displacement of 30 cylinders or more would be installed in the U.S. and, therefore, no costs have been estimated. However, if stationary CI ICE of such displacement are installed, there would be associated notification and compliance testing costs. Further information on how EPA estimated the total costs of the final rule can be found in a memorandum included in the docket (Docket ID. No. EPA-HQ-OAR-2005-0029).

The total national capital cost for the final rule is estimated to be approximately \$67 million in the year 2015, with a total national annual cost of \$57 million in the year 2015. The year 2015 is the model year for which all stationary CI ICE would have to meet

the final Tier 4 emission standards. The total national capital and annual costs in the year 2030 are estimated to be \$93 and \$286 million, respectively.

### C. What are the economic impacts?

The final rule affects new sources of stationary diesel engines as part of generator sets and welding equipment, pump and compressor equipment, and irrigation equipment. We performed an economic impact analysis, whose methodology is based on that for the nonroad diesel engine rule promulgated by EPA in 2004 that estimates changes in prices and output for affected sources using the annual compliance costs estimated for the final rule. All estimates are for year 2015, since this is the year for which the compliance cost impacts are estimated.

The increases in price estimated for this equipment are the following: 2.3 percent—irrigation systems, 4.3 percent—pumps and compressors, and 10.0 percent—generator sets and welding equipment. While these price increases appear substantial, the corresponding reductions in output are quite small. They are: 0.01 percent—irrigation systems, 0.03 percent—pumps and compressors, and 0.42 percent—generator sets and welding equipment. The price increases and reductions in output were larger for smaller sized engines when compared to larger sized ones. These small reductions in output are due to limited change in demand from consumers in response to the estimated price changes as based on market data utilized in the nonroad rule economic impact analysis. The overall total annual social costs, which reflect changes in consumer and producer behavior in response to the compliance costs, are \$39.1 million (2002\$) or almost identical to the compliance costs.

The economic impacts are relatively small since the change in expected output from affected industries will be quite small. Thus, the industries producing the affected engines and the consumers who would use these engines will experience little or no impact as a result of the final rule.

For more information, refer to the economic impact analysis report that is in the public docket.

### D. What are the non-air health, environmental and energy impacts.

EPA does not anticipate any significant non-air health, environmental or energy impacts as a result of the final rule.

### E. What are the benefits?

We estimate the benefits of this rule to be \$1.36 billion (2000\$) in the year 2015. We base this estimate on the approach and methodology laid out in EPA's 2004 benefits analysis supporting the regulation of emissions from nonroad diesel engines (included in the Final Regulatory Impact Analysis (RIA): Control of Emissions from Nonroad Diesel Engines, May 2004). We chose this analysis as the basis since most of the elements in that rule are similar to those covered here. The engine type, the controls applied, and the pollutants affected are similar to those covered by the Nonroad Diesel engine rule. In addition, EPA believes that these types of engines are broadly distributed across the country similar in distribution to nonroad diesel engines. These four factors lead us to believe is appropriate to use the benefits transfer approach and values in the Nonroad Diesel engine rule analysis for estimating the benefits of this rule. Specifically, these estimates are based on application of the benefits scaling approach derived from the benefits analyses completed for that rulemaking. The methodology is laid out in the Nonroad Diesel RIA.

For this RIA, we did not go through the detailed uncertainty assessment used in the Nonroad Diesel RIA because we lack the necessary air quality input data to run the benefits model. However, the results of a Monte Carlo analysis of the health and welfare benefits presented in Appendix B of the Nonroad Diesel RIA can provide some evidence of the uncertainty surrounding the benefits results presented in this analysis. At the 5th percentile, the monetized benefits are roughly one quarter of the mean benefits estimate and at the 95th percentile they are roughly double the mean. We also used an approach for estimating benefits in which we applied an expert elicitation approach. An expert elicitation approach uses a probabilistic approach that provides quantitative measures of uncertainty from multiple sources as integrated by experts. For the expert elicitation based approach, the 95th percentile of total benefits is approximately three times the mean, while the 5th percentile is approximately one-twentieth of the mean. The overall range from 5th to 95th is somewhat wider than that of the statistical based approach.

Using these values as a guide, we assumed that the distribution of values for this rule would be similar. Thus, at the 5th percentile, monetized benefits would be roughly \$340 million (2000\$) and at the 95th percentile, monetized

benefits would be roughly \$2.7 billion (2000\$) assuming a 3 percent discount rate. This is the same discount rate we apply in our benefits estimate listed above. Using estimates derived from the expert elicitation approach and again assuming a 3 percent discount rate, monetized benefits at the 5th percentile would be roughly \$68 million (2000\$) and at the 95th percentile, monetized benefits would be roughly \$4.4 billion (2000\$).

With the annualized costs of this rulemaking estimated at \$57 million (2000\$) in 2015 and with benefits of \$1.36 billion (2000\$) for that same year, EPA believes that the benefits are likely to exceed the costs. Please refer to the Nonroad diesel RIA for a detailed discussion of the uncertainties considered in EPA's benefit analyses.

For more information, please refer to the RIA for this rule that is available in the docket.

## VI. Statutory and Executive Order Reviews

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

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether a regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

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

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

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a "significant regulatory action" within the meaning of the Executive Order. EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.



### B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2196.01.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NSPS General Provisions (40 CFR part 60, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The final rule will require maintenance inspections of the control devices but will not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be 145,000 labor hours per year at a total annual cost of \$9,593,700. This estimate includes a one-time notification, engine certification, and recordkeeping. There are no capital/start-up costs associated with the monitoring requirements over the 3-year period of the ICR. The operation and maintenance costs for the monitoring requirements over the 3-year period of the ICR are estimated to be \$242,300 per year.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of

information; and transmit or otherwise disclose the information.

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

### C. Regulatory Flexibility Act

The Regulatory Flexibility Act 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 not-for-profit enterprises, and small governmental jurisdictions.

For the purposes of assessing the impacts of the final rule on small entities, small entity is defined as a small business based on the following Small Business Administration small business size definitions that are based on employee size: NAICS 335312—Motor and Generator Manufacturing—1,000 employees; NAICS 333911—Pump and Pumping Equipment Manufacturing—500 employees; NAICS 333912—Air and Gas Compressor Manufacturing—500 employees; NAICS 333992—Welding and Soldering Equipment Manufacturing—500 employees. In addition, a small governmental jurisdiction is defined as a government of a city, county, town, school district or special district with a population of less than 50,000, and a small organization is defined as 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 final rule on small entities, I conclude that this final action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by the final rule are businesses within the NAICS codes mentioned above. There are 104 ultimate parent businesses that will be affected by the final rule. Sixty of these businesses are small according to the SBA small business size standards. Four of these sixty firms will have an annualized compliance cost of more than 1 percent of sales associated with meeting the requirements of the final rule, and one of these four will have a compliance cost of more than 3 percent of sales. For more information on the small entity impacts, refer to the

economic impact and small business analyses in the rulemaking docket.

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless tried to reduce the impact of the final rule on small entities. A majority of the affected facilities are primarily small entities (e.g., small businesses). When developing the rule, EPA took special steps to ensure that the burdens imposed on small entities were reasonable.

EPA is including the same provisions for small manufacturers and small refiners that the nonroad CI engine rule does. EPA is helping small entities by providing a lead time for the required emission standards and fuel requirements. Owners and operators of non-emergency stationary CI ICE are subject to minimum reporting and owners and operators of emergency stationary CI ICE do not have to submit any reports. EPA has also specifically worked with industry to provide special provisions for emergency fire pump engine manufacturers, some of which are small businesses, to develop a rule that is achievable for this segment.

### D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least-costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small

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

EPA has determined that this final rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Thus, this final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA.

#### *E. Executive Order 13132: Federalism*

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

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rule primarily affects private industry, and does not impose significant economic costs on State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

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

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

The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final rule.

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

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

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

#### *H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*

The final rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse

effect on the supply, distribution, or use of energy. The basis for this determination is provided below.

The economic impact analysis (EIA) estimates changes in prices and production levels for all energy markets (i.e., petroleum, natural gas, electricity, and coal). We also estimate how changes in the energy markets will impact other users of energy, with a focus on those that would employ the non-emergency stationary CI engines affected by the final rule. The estimated increase in demand for ULSD in 2015 (the year for which the impacts of the final rule are estimated) associated with the final rule is 63.2 million gallons, or 1.505 million barrels for that year. This amount is equivalent to 4,123 barrels per day additional demand of ULSD. The expected increase in demand for ULSD will not likely be a difficulty for refiners to meet in 2015. Hence, no significant adverse effect on the supply of this fuel is expected from implementation of the final rule. All impact estimates for other types of energy are below the thresholds that must be evaluated under this Executive Order, and no adverse effects are expected to the distribution and use of energy. The estimates contained within the EIA thus show that there is no significant adverse effect on the supply, distribution, or use of energy associated with the final rule.

#### *I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104-113, Section 12(d), 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement 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, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

This final rule involves technical standards. EPA cites the standard test procedures in 40 CFR part 1039, subpart F, which in turn cites the procedures in 40 CFR part 1065, 40 CFR 86.1310 for full flow dilution, 40 CFR 89.412 to 89.418 for raw-gas sampling using steady-state tests, 40 CFR 89.112(c) for partial-flow sampling for gaseous emissions during steady-state tests,

California Regulations for New 1996 and Later Heavy-duty Off-Road Diesel Cycle Engines, 40 CFR 89.112(c), 40 CFR part 86, subpart N (7/1/99), and 40 CFR 86.1309 for non-petroleum diesel fuel. The procedures in 40 CFR part 1065 also allow any CA ARB or International Organization for Standardization (ISO) standard if shown to be equivalent.

Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these methods. One voluntary consensus standard was found that is potentially applicable to the methods cited. This standard is not acceptable as an alternative for the indicated test procedures, as discussed below.

The voluntary consensus standard ISO ISO 8178-1:1996, "Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—Part 1: Test-bed Measurement of Gaseous and Particulate Exhaust Emissions," is not acceptable as an alternative to the test procedures in §§ 60.4212 and 60.4213 of the final rule (specifically 40 CFR 86.1310) for the following reasons. Although ISO 8178-1:1996 has many of the features of EPA test procedures, the ISO standard allows the gaseous measurements to be made in an undiluted sample whereas EPA procedures in 40 CFR 86.1310 require at least one dilution of the sample. The ISO method does allow the gaseous measurements to be made during the double diluted sampling procedures for PM, but it is not required by the ISO method. Also, in the measurement of hydrocarbons, the ISO method only specifies that the sample lines are to be maintained above 70°C and advises that the flow capacity of the sample lines is used to prevent condensation. In EPA procedures in 40 CFR 86.1310, the sample lines must be maintained at 191°C during the hydrocarbon tests to prevent condensation.

Sections 60.4212 and 60.4213 of the final rule list the testing method included in the regulation. Under § 63.7(f) and § 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures.

#### *J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a

copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a "major rule" as defined by 5 U.S.C. 804(2). The final rule will be effective on September 11, 2006.

#### **List of Subjects**

##### *40 CFR Part 60*

Administrative practice and procedure, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

##### *40 CFR Part 85*

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

##### *40 CFR Part 89*

Administrative practice and procedure, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Vessels, Warranties.

##### *40 CFR Part 94*

Administrative practice and procedure, Air pollution control, Imports, Penalties, Reporting and recordkeeping requirements, Vessels, Warranties.

##### *40 CFR Part 1039*

Administrative practice and procedure, Air pollution control.

##### *40 CFR Part 1065*

Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements, Research.

##### *40 CFR Part 1068*

Administrative practice and procedure, Air pollution control, Imports, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements, Warranties.

Dated: June 28, 2006.

**Stephen L. Johnson,**  
*Administrator.*

■ For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended to read as follows:

#### **PART 60—[AMENDED]**

■ 1. The authority citation for part 60 continues to read as follows:

*Authority:* 42 U.S.C. 7401, *et seq.*

#### **Subpart A—[AMENDED]**

■ 2. Section 60.17(a) is amended by redesignating paragraphs (a)(84) through (a)(91) as paragraphs (a)(85) through (a)(92), respectively and adding a new paragraph (a)(84) to read as follows:

#### **§ 60.17 Incorporations by Reference.**

\* \* \* \* \*

(a) \* \* \*

(84) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for table 7 of Subpart III of this part.

\* \* \* \* \*

■ 3. Part 60 is amended by adding subpart III to read as follows:

#### **Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

##### **What This Subpart Covers**

Sec.

60.4200 Am I subject to this subpart?

##### **Emission Standards for Manufacturers**

60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

##### **Emission Standards for Owners and Operators**

60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

##### **Fuel Requirements for Owners and Operators**

60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

**Other Requirements for Owners and Operators**

- 60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year?
- 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

**Compliance Requirements**

- 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?
- 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

**Testing Requirements for Owners and Operators**

- 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?
- 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

**Notification, Reports, and Records for Owners and Operators**

- 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

**Special Requirements**

- 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?
- 60.4216 What requirements must I meet for engines used in Alaska?
- 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

**General Provisions**

- 60.4218 What parts of the General Provisions apply to me?

**Definitions**

- 60.4219 What definitions apply to this subpart?

**Tables to Subpart III of Part 60**

- Table 1 to Subpart III of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines with a displacement of <10 liters per cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder
- Table 2 to Subpart III of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) and with a Displacement of <10 liters per cylinder

- Table 3 to Subpart III of Part 60—Certification Requirements for Stationary Fire Pump Engines
- Table 4 to Subpart III of Part 60—Emission Standards for Stationary Fire Pump Engines
- Table 5 to Subpart III of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines
- Table 6 to Subpart III of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines
- Table 7 to Subpart III of Part 60—Requirements for Performance Tests for Stationary CI ICE with a displacement of ≥30 liters per cylinder
- Table 8 to Subpart III of Part 60—Applicability of General Provisions to Subpart III

**Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What This Subpart Covers****§ 60.4200 Am I subject to this subpart?**

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area

source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

**Emission Standards for Manufacturers****§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30

liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

**§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per

cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

**§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§ 60.4201 and 60.4202 during the useful life of the engines.

**Emission Standards for Owners and Operators**

**§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NO<sub>x</sub>) emissions by 90 percent or more, or limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion

engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

**§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart.

Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NO<sub>x</sub> emissions by 90 percent or more, or limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

**§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

## Fuel Requirements for Owners and Operators

### § 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

## Other Requirements for Owners and Operators

### § 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary

CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

(h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

### § 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a

non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

## Compliance Requirements

### § 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in § 60.4201(a) through (c) and § 60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in § 60.4201(d) and § 60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039.

Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must

refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding

requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in § 60.4202 but does not meet all the emission standards for non-emergency engines in § 60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§ 60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

**§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§ 60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards

specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in § 60.4213.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone

may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under § 60.4205 but not § 60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

#### Testing Requirements for Owners and Operators

##### § 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the

testing procedures specified in § 60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model



year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

**§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

$C_i$  = concentration of NO<sub>x</sub> or PM at the control device inlet,

$C_o$  = concentration of NO<sub>x</sub> or PM at the control device outlet, and

R = percent reduction of NO<sub>x</sub> or PM emissions.

(2) You must normalize the NO<sub>x</sub> or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O<sub>2</sub>) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO<sub>2</sub>) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{O}_2} \quad (\text{Eq. 3})$$

Where:

$C_{\text{adj}}$  = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

5.9 = 20.9 percent O<sub>2</sub> – 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

%O<sub>2</sub> = Measured O<sub>2</sub> concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of O<sub>2</sub> concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using

values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

$F_o$  = Fuel factor based on the ratio of O<sub>2</sub> volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O<sub>2</sub>, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

$F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

$X_{\text{CO}_2}$  = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> – 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(iii) Calculate the NO<sub>x</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{\text{adj}} = C_d \frac{X_{\text{CO}_2}}{\% \text{CO}_2} \quad (\text{Eq. 6})$$

Where:

$C_{\text{adj}}$  = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.

(e) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 7 of this section:

$$\text{ER} = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_d$  = Measured NO<sub>x</sub> concentration in ppm.

$1.912 \times 10^{-3}$  = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$\text{ER} = \frac{C_{\text{adj}} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_{\text{adj}}$  = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

## Notification, Reports, and Records for Owners and Operators

### § 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or

operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

### Special Requirements

#### § 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in § 60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in § 60.4204(c).

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in § 60.4207.

#### § 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart III, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart III. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

#### § 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the

Administrator under § 60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of § 60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in § 60.4202 or § 60.4203 using such fuels.

(b) [Reserved]

### General Provisions

#### § 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

### Definitions

#### § 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

*Combustion turbine* means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

*Diesel particulate filter* means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

*Emergency stationary internal combustion engine* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment

(including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.

*Fire pump engine* means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

*Manufacturer* has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

*Maximum engine power* means maximum engine power as defined in 40 CFR 1039.801.

*Model year* means either:

- (1) The calendar year in which the engine was originally produced, or
- (2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This

must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

*Reciprocating internal combustion engine* means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

*Rotary internal combustion engine* means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

*Spark ignition* means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel

(typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(i) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

*Subpart* means 40 CFR part 60, subpart IIII.

*Useful life* means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

**Tables to Subpart IIII of Part 60**

**TABLE 1 TO SUBPART IIII OF PART 60.—EMISSION STANDARDS FOR STATIONARY PRE-2007 MODEL YEAR ENGINES WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER AND 2007–2010 MODEL YEAR ENGINES >2,237 KW (3,000 HP) AND WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER**

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO <sub>x</sub>	HC	NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	10.5 (7.8)	.....	.....	8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)	.....	.....	6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)	.....	.....	5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)	.....	.....	9.2 (6.9)	.....	.....
56≤KW<75 (75≤HP<100)	.....	.....	9.2 (6.9)	.....	.....
75≤KW<130 (100≤HP<175)	.....	.....	9.2 (6.9)	.....	.....
130≤KW<225 (175≤HP<300)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)	.....	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

TABLE 2 TO SUBPART IIII OF PART 60.—EMISSION STANDARDS FOR 2008 MODEL YEAR AND LATER EMERGENCY STATIONARY CI ICE <37 KW (50 HP) WITH A DISPLACEMENT OF <10 LITERS PER CYLINDER

[As stated in § 60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO <sub>x</sub> + NMHC	CO	PM
KW<8 (HP<11) .....	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25) .....	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50) .....	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

TABLE 3 TO SUBPART IIII OF PART 60.—CERTIFICATION REQUIREMENTS FOR STATIONARY FIRE PUMP ENGINES

[As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d)
KW<75 (HP<100) .....	2011
75≤KW<130 (100≤HP<175) .....	2010
130≤KW≤560 (175≤HP≤750) .....	2009
KW>560 (HP>750) .....	2008

TABLE 4 TO SUBPART IIII OF PART 60.—EMISSION STANDARDS FOR STATIONARY FIRE PUMP ENGINES

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO <sub>x</sub>	CO	PM
KW<8 (HP<11) .....	2010 and earlier .....	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+ .....	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25) .....	2010 and earlier .....	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+ .....	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50) .....	2010 and earlier .....	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+ .....	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75) .....	2010 and earlier .....	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ <sup>1</sup> .....	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100) .....	2010 and earlier .....	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ <sup>1</sup> .....	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175) .....	2009 and earlier .....	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ <sup>2</sup> .....	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300) .....	2008 and earlier .....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ <sup>3</sup> .....	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600) .....	2008 and earlier .....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ <sup>3</sup> .....	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750) .....	2008 and earlier .....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ .....	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750) .....	2007 and earlier .....	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+ .....	6.4 (4.8)		0.20 (0.15)

<sup>1</sup> For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

<sup>2</sup> For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

<sup>3</sup> In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

TABLE 5 TO SUBPART IIII OF PART 60.—LABELING AND RECORDKEEPING REQUIREMENTS FOR NEW STATIONARY EMERGENCY ENGINES

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75) .....	2013
56≤KW<130 (75≤HP<175) .....	2012
KW≥130 (HP≥175) .....	2011

TABLE 6 TO SUBPART III OF PART 60.—OPTIONAL 3-MODE TEST CYCLE FOR STATIONARY FIRE PUMP ENGINES

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed <sup>1</sup>	Torque (percent) <sup>2</sup>	Weighting factors
1 .....	Rated .....	100	0.30
2 .....	Rated .....	75	0.50
3 .....	Rated .....	50	0.20

<sup>1</sup> Engine speed: ±2 percent of point.

<sup>2</sup> Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

TABLE 7 TO SUBPART III OF PART 60.—REQUIREMENTS FOR PERFORMANCE TESTS FOR STATIONARY CI ICE WITH A DISPLACEMENT OF ≥30 LITERS PER CYLINDER

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder.	a. Reduce NO <sub>x</sub> emissions by 90 percent or more.	i. Select the sampling port location and the number of traverse points; ii. Measure O <sub>2</sub> at the inlet and outlet of the control device; iii. If necessary, measure moisture content at the inlet and outlet of the control device; and, iv. Measure NO <sub>x</sub> at the inlet and outlet of the control device.	(1) Method 1 or 1A of 40 CFR part 60, appendix A. (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A. (3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17). (4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(a) Sampling sites must be located at the inlet and outlet of the control device. (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration. (c) Measurements to determine moisture content must be made at the same time as the measurements for NO <sub>x</sub> concentration. (d) NO <sub>x</sub> concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO <sub>x</sub> in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points; ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location; and, iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and, iv. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine.	(1) Method 1 or 1A of 40 CFR part 60, Appendix A. (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A. (3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17). (4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(a) If using a control device, the sampling site must be located at the outlet of the control device. (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurement for NO <sub>x</sub> concentration. (c) Measurements to determine moisture content must be made at the same time as the measurement for NO <sub>x</sub> concentration. (d) NO <sub>x</sub> concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A.	(a) Sampling sites must be located at the inlet and outlet of the control device.

TABLE 7 TO SUBPART III OF PART 60.—REQUIREMENTS FOR PERFORMANCE TESTS FOR STATIONARY CI ICE WITH A DISPLACEMENT OF ≥30 LITERS PER CYLINDER—Continued

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust.	ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;  iii. If necessary, measure moisture content at the inlet and outlet of the control device; and  iv. Measure PM at the inlet and outlet of the control device.  i. Select the sampling port location and the number of traverse points;  ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location; and  iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and  iv. Measure PM at the exhaust of the stationary internal combustion engine.	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.  (3) Method 4 of 40 CFR part 60, appendix A.  (4) Method 5 of 40 CFR part 60, appendix A.  (1) Method 1 or 1A of 40 CFR part 60, Appendix A.  (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.  (3) Method 4 of 40 CFR part 60, appendix A.  (4) Method 5 of 40 CFR part 60, appendix A.	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.  (c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.  (d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.  (a) If using a control device, the sampling site must be located at the outlet of the control device.  (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.  (c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.  (d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

TABLE 8 TO SUBPART III OF PART 60.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART III

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	Yes.	
§ 60.2	Definitions	Yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	Yes.	
§ 60.4	Address	Yes.	
§ 60.5	Determination of construction or modification	Yes.	
§ 60.6	Review of plans	Yes.	
§ 60.7	Notification and Recordkeeping	Yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	Yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	Yes.	
§ 60.10	State Authority	Yes.	
§ 60.11	Compliance with standards and maintenance requirements.	No	Requirements are specified in subpart III.
§ 60.12	Circumvention	Yes.	

TABLE 8 TO SUBPART IIII OF PART 60.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII—Continued  
[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.13 .....	Monitoring requirements .....	Yes .....	Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§ 60.14 .....	Modification .....	Yes.	
§ 60.15 .....	Reconstruction .....	Yes.	
§ 60.16 .....	Priority list .....	Yes.	
§ 60.17 .....	Incorporations by reference .....	Yes.	
§ 60.18 .....	General control device requirements .....	No.	
§ 60.19 .....	General notification and reporting requirements ..	Yes.	

**PART 85—[AMENDED]**

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

**Authority:** 42 U.S.C. 7401–7671q.

■ 5. Section 85.2401 is amended by revising paragraphs (a)(6), (a)(11), and (a)(12) and adding paragraph (a)(13) to read as follows:

**§ 85.2401 To whom do these requirements apply?**

(a) \* \* \*

(6) Nonroad compression-ignition engines (See 40 CFR parts 89 and 1039);  
\* \* \* \* \*

(11) Heavy-duty highway gasoline vehicles (evaporative emissions certification only) (See 40 CFR part 86);

(12) Large nonroad spark-ignition engines (engines >19 KW) (See 40 CFR part 1048); and

(13) Stationary internal combustion engines (See 40 CFR part 60, subpart IIII).  
\* \* \* \* \*

■ 6. Section 85.2403 is amended by revising the definition for “Federal certificate” in paragraph (a), revising paragraphs (b)(8) and (b)(9), and adding paragraphs (b)(10) and (b)(11) to read as follows:

**§ 85.2403 What definitions apply to this subpart?**

(a) \* \* \*

\* \* \* \* \*

*Federal certificate* is a Certificate of Conformity issued by EPA which signifies compliance with emission requirements in any of the parts specified in paragraph (b) of this section.  
\* \* \* \* \*

(b) \* \* \*

- (8) 40 CFR part 1039;
- (9) 40 CFR part 1048;
- (10) 40 CFR part 1051; and
- (11) 40 CFR part 60, subpart IIII.

■ 7. Section 85.2405 is amended by adding paragraph (e) to read as follows:

**§ 85.2405 How much are the fees?**

\* \* \* \* \*

(e) Fees for stationary CI internal combustion engine certificate requests shall be calculated in the same manner as for NR CI certificate requests for engines with a displacement less than 10 liters per cylinder, and in the same manner as for marine engine certificate requests for engines with a displacement greater than or equal to 10 liters per cylinder. Fees for certificate requests where the certificate would apply to stationary and mobile engines shall be calculated in the same manner as fees for the certificate requests for the applicable mobile source engines.

**PART 89—[AMENDED]**

■ 8. The authority citation for part 89 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 9. Section 89.1 is amended by adding paragraph (d) to read as follows:

**§ 89.1 Applicability.**

\* \* \* \* \*

(d) This part applies as specified in 40 CFR part 60 subpart IIII, to compression-ignition engines subject to the standards of 40 CFR part 60, subpart IIII.

■ 10. Section 89.115 is amended by adding paragraph (d)(11) to read as follows:

**§ 89.115 Application for certificate.**

\* \* \* \* \*

(d) \* \* \*

(11) A statement indicating whether the engine family contains only nonroad engines, only stationary engines, or both.

■ 11. Section 89.201 is revised to read as follows:

**§ 89.201 Applicability.**

Nonroad compression-ignition engines subject to the provisions of subpart A of this part are eligible to participate in the averaging, banking, and trading program described in this

subpart. To the extent specified in 40 CFR part 60, subpart IIII, stationary engines certified under this part and subject to the standards of 40 CFR part 60, subpart IIII, may participate in the averaging, banking, and trading program described in this subpart.

**PART 94—[AMENDED]**

■ 12. The authority citation for part 94 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 13. Section 94.1 is amended by adding paragraph (d) to read as follows:

**§ 94.1 Applicability.**

\* \* \* \* \*

(d) This part applies as specified in 40 CFR part 60, subpart IIII, to compression-ignition engines subject to the standards of 40 CFR part 60, subpart IIII.

■ 14. Section 94.301 is revised to read as follows:

**§ 94.301 Applicability.**

Marine engine families subject to the standards of subpart A of this part are eligible to participate in the certification averaging, banking, and trading program described in this subpart. The provisions of this subpart apply to manufacturers of new engines that are subject to the emission standards of § 94.8. To the extent specified in 40 CFR part 60, subpart IIII, stationary engines certified under this part and subject to the standards of 40 CFR part 60, subpart IIII, may participate in the averaging, banking, and trading program described in this subpart.

**PART 1039—[AMENDED]**

■ 15. The authority citation for part 1039 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 16. Section 1039.1 is amended by revising paragraph (c) to read as follows:

**§ 1039.1 Does this part apply for my engines?**

\* \* \* \* \*

(c) The definition of nonroad engine in 40 CFR 1068.30 excludes certain engines used in stationary applications. These engines may be required by subpart IIII of 40 CFR part 60 to comply with some of the provisions of this part 1039; otherwise, these engines are only required to comply with the requirements in § 1039.20. In addition, the prohibitions in 40 CFR 1068.101 restrict the use of stationary engines for nonstationary purposes unless they are certified under this part 1039, or under the provisions of 40 CFR part 89 or 40 CFR part 94, to the same standards that would apply to nonroad engines for the same model year.

\* \* \* \* \*

■ 17. Section 1039.20 is amended by revising paragraphs (a) and (b) and adding paragraph (c) to read as follows:

**§ 1039.20 What requirements from this part apply to excluded stationary engines?**

\* \* \* \* \*

(a) You must add a permanent label or tag to each new engine you produce or import that is excluded under § 1039.1(c) as a stationary engine and is not required by 40 CFR part 60, subpart IIII, to meet the requirements of this part 1039, or the requirements of parts 89 or 94, that are equivalent to the requirements applicable to nonroad or marine engines for the same model year. To meet labeling requirements, you must do the following things:

(1) Attach the label or tag in one piece so no one can remove it without destroying or defacing it.

(2) Secure it to a part of the engine needed for normal operation and not normally requiring replacement.

(3) Make sure it is durable and readable for the engine's entire life.

(4) Write it in English.

(5) Follow the requirements in § 1039.135(g) regarding duplicate labels if the engine label is obscured in the final installation.

(b) Engine labels or tags required under this section must have the following information:

(1) Include the heading "EMISSION CONTROL INFORMATION."

(2) Include your full corporate name and trademark. You may instead include the fill corporate name and trademark of another company you choose to designate.

(3) State the engine displacement (in liters) and maximum engine power (or in the case of fire pumps, NFPA nameplate engine power).

(4) State: "THIS ENGINE IS EXEMPTED FROM THE

REQUIREMENTS OF 40 CFR PARTS 89 AND 1039 AS A "STATIONARY ENGINE." INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY."

(c) Stationary engines required by 40 CFR part 60, subpart IIII, to meet the requirements of this part 1039, or parts 89 or 94, must meet the labeling requirements of 40 CFR 60.4210.

■ 18. Section 1039.205 is amended by revising paragraph (v) to read as follows:

**§ 1039.205 What must I include in my application?**

\* \* \* \* \*

(v) State whether your certification is intended to include engines used in stationary applications. State whether your certification is limited for certain engines. If this is the case, describe how you will prevent use of these engines in applications for which they are not certified. This applies for engines such as the following:

(1) Constant-speed engines.

(2) Engines used for transportation refrigeration units that you certify under the provisions of § 1039.645.

(3) Hand-startable engines certified under the provisions of § 1039.101(c).

(4) Engines above 560 KW that are not certified to emission standards for generator-set engines.

\* \* \* \* \*

■ 19. Section 1039.705 is amended by revising paragraph (c) to read as follows:

**§ 1039.705 How do I generate and calculate emission credits?**

\* \* \* \* \*

(c) In your application for certification, base your showing of compliance on projected production volumes for engines whose point of first retail sale is in the United States. As described in § 1039.730, compliance with the requirements of this subpart is determined at the end of the model year based on actual production volumes for engines whose point of first retail sale is in the United States. Do not include any of the following engines to calculate emission credits:

(1) Engines exempted under subpart G of this part or under 40 CFR part 1068.

(2) Exported engines.

(3) Engines not subject to the requirements of this part, such as those excluded under § 1039.5.

(4) Engines in families that include only stationary engines, except for engines in families certified to standards that are identical to standards applicable under this part 1039 to nonroad engines of the same type for the same model year.

(5) Any other engines, where we indicate elsewhere in this part 1039 that they are not to be included in the calculations of this subpart.

**PART 1065—[AMENDED]**

■ 20. The authority citation for part 1065 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 21. Section 1065.1 is amended by adding paragraph (a)(5) to read as follows:

**§ 1065.1 Applicability.**

(a) \* \* \*

(5) Stationary compression-ignition engines certified using the provisions of 40 CFR part 1039, as indicated under 40 CFR part 60, subpart IIII, the standard-setting part for these engines.

\* \* \* \* \*

**PART 1068—[AMENDED]**

■ 22. The authority citation for part 1068 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 23. Section 1068.1 is amended by adding paragraph (a)(4) to read as follows:

**§ 1068.1 Does this part apply to me?**

(a) \* \* \*

(4) Stationary compression-ignition engines certified to the provisions of 40 CFR part 1039, as indicated under 40 CFR part 60, subpart IIII.

\* \* \* \* \*

■ 24. Section 1068.310 is amended by revising paragraph (b) to read as follows:

**§ 1068.310 What are the exclusions for imported engines?**

\* \* \* \* \*

(b) *Stationary engines.* The definition of nonroad engine in 40 CFR 1068.30 does not include certain engines used in stationary applications. Such engines may be subject to the standards of 40 CFR part 60. Engines that are excluded from the definition of nonroad engine in this part and not required to be certified to standards under 40 CFR part 60 are not subject to the restrictions on imports in § 1068.301(b), but only if they are properly labeled. Section 1068.101 restricts the use of stationary engines for non-stationary purposes unless they are certified under 40 CFR Part 60 to the same standards that would apply to nonroad engines for the same model year.

\* \* \* \* \*

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