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Part II

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40 CFR Parts 60, 85, 89, et al.
Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

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

[OAR–2005–0029, FRL–7934–4]

RIN 2060–AM82

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This action proposes standards of performance for stationary compression ignition (CI) internal combustion engines (ICE). These standards 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 proposed standards would reduce nitrogen oxides (NO_X) by an estimated 38,000 tons per year (tpy), particulate matter (PM) by an estimated 3,000 tpy, sulfur dioxide (SO_2) 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: *Comments.* Submit comments on or before September 9, 2005, or 30 days after date of public hearing if later.

Public Hearing. If anyone contacts us requesting to speak at a public hearing by August 1, 2005, a public hearing will be held on August 23, 2005.

ADDRESSES: Submit your comments, identified by Docket ID No. OAR–2005–0029, by one of the following methods:

- Federal eRulemaking Portal: *http://www.regulations.gov.* Follow the on-line instructions for submitting comments.
- Agency Web site: *http://www.epa.gov/edocket.* EDOCKET, EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Follow the on-line instructions for submitting comments.
- E-mail: Send your comments via electronic mail to *a-and-r-docket@epa.gov,* Attention Docket ID No. OAR–2005–0029.
- Fax: Fax your comments to (202) 566–1741, Attention Docket ID No. OAR–2005–0029.
- Mail: Send your comments to: EPA Docket Center (EPA/DC), EPA, Mailcode 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. OAR–2005–0029. Please include a total of two copies. The EPA requests a separate copy also be sent to the contact person identified below (see **FOR FURTHER INFORMATION CONTACT**). In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th St., NW., Washington, DC 20503.
- Hand Delivery: Deliver your comments to: EPA Docket Center (EPA/DC), EPA West Building, Room B108, 1301 Constitution Ave., NW., Washington DC, 20460, Attention Docket ID No. OAR–2005–0029. Such deliveries are accepted only during the normal hours of operation (8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays), and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. OAR–2005–0029. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.epa.gov/edocket,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through EDOCKET, regulations.gov, or e-mail. The EPA EDOCKET and the Federal regulations.gov Web sites are ''anonymous access'' systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through EDOCKET or regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit EDOCKET on-line or see the **Federal Register** of May 31, 2002 (67 FR 38102).

Public Hearing: If a public hearing is held, it will be held at EPA's Campus located at 109 T.W. Alexander Drive in Research Triangle Park, NC or alternate site nearby.

Docket: All documents in the docket are listed in the EDOCKET index at *http://www.epa.gov/edocket.* We also rely on documents in Docket ID No. OAR–2003–0012 and incorporate that docket into the record for this proposed rule. Although listed in the index, some information is not publicly available, *i.e.*, 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 in EDOCKET or in hard copy at the Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Sims Roy, Combustion Group, Emission Standards Division (MD–C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number (919) 541–5263; facsimile number (919) 541–5450; electronic mail address ''*roy.sims@epa.gov.*''

SUPPLEMENTARY INFORMATION:

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

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I. General Information

A. Does This Action Apply to Me?

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

Category	SIC [1]	NAICS [2]	Examples of regulated entities
Any manufacturer that produces or any industry using a stationary internal combustion engine as defined in the proposed rule.	4911	2211	Electric power generation, transmission, or distribution.
	8062	622110	Medical and surgical hospitals.
	3621	335312	Motor and Generator Manufacturing.
	3561	33391	Pump and Compressor Manufacturing.
	3548	333992	Welding and Soldering Equipment Manufacturing.

[1] Standard Industrial Classification.
[2] 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 proposed 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.

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

1. *Submitting CBI.* Do not submit this information to EPA through EDOCKET, regulations.gov or e-mail. Send or deliver information identified as CBI to only the following address: Mr. Sims Roy, c/o OAQPS Document Control Officer (Room C404–02), U.S. EPA, Research Triangle Park, NC 27711, Attention Docket ID No. OAR–2005–0029. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for Preparing Your Comments.* When submitting comments, remember to:

a. Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).

b. Follow directions. The EPA may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

c. Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

d. Describe any assumptions and provide any technical information and/or data that you used.

e. If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

f. Provide specific examples to illustrate your concerns, and suggest alternatives.

g. Explain your views as clearly as possible, avoiding the use of profanity or personal threats.

h. Make sure to submit your comments by the comment period deadline identified.

Docket. The docket number for the proposed NSPS is Docket ID No. OAR–2005–0029.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of the proposed rule is also available on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, EPA will post a copy of the proposed 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.

II. Background

This action proposes new source performance standards (NSPS) that would 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 them is proposed. An NSPS requires 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.

III. Summary of the Proposed Rule

A. What Is the Source Category Regulated by the Proposed Rule?

Today's proposed standards apply 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, 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. An 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 Proposed Rule?

The pollutants to be regulated by the proposed standards are NO_X, PM, CO, and NMHC. Emissions of sulfur oxides (SO_X) will also be reduced through the use of lower sulfur fuel. Smoke emissions will also be reduced through the implementation of the proposed standards. Emissions of hazardous air pollutants (HAP) from these engines have been, or will be, regulated in separate rulemakings promulgated under section 112.[1]

C. What Is the Best Demonstrated Technology?

1. Background

Section 111 of the CAA states that a standard of performance ''means a standard * * * which reflects the degree of emission limitation achievable through application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.''

The following sections provide additional information by identifying specific technologies (referred to hereafter as ''BDT'') that EPA anticipates to be used to meet the NSPS. It must be noted, however, that EPA's proposal is that the best system of emissions reduction that has been adequately demonstrated is a set of emissions standards, including an averaging, banking and trading program, that allows for the use of other potential technologies that meet or exceed the standards.

2. Non-Emergency Stationary CI ICE <10 Liters per Cylinder

The EPA expects there will be few, if any, stationary CI ICE less than 50 horsepower (HP). Nevertheless, EPA has established emission standards for these engines for the potential few engines less than 50 HP that may be stationary CI ICE.

For non-emergency engines less than 25 HP, the technologies that are the basis of the proposed standards are expected to be the same as the technologies that are the basis for the nonroad diesel engine standards in this size range. The basis of the proposed PM standards for these engines is a variety of engine-based technologies including combustion optimization and different fuel injection strategies. The EPA expects that manufacturers of smaller engines may also utilize oxidation catalyst control for PM in order to meet the Tier 4 standard for nonroad diesel engines. The EPA expects that manufacturers of stationary CI ICE less than 25 HP will employ engine-based technologies, to meet the proposed NO_X for engines less than 25 HP include advanced in-cylinder technologies and electronic fuel systems.

For non-emergency engines greater than or equal to 25 HP with a displacement of less than 10 liters per cylinder, the technology that is the basis of the proposed PM standards is catalyzed diesel particulate filters (CDPF) used in conjunction with ultra low sulfur diesel (ULSD) fuel. The standards for PM that are based on the use of CDPF and ULSD start as early as 2011 for some engines, but the schedule varies depending on the size of the engine. The CDPF technology is capable of reducing PM, CO, and NMHC emissions from stationary CI ICE by at least 90 percent. The technology basis of the proposed CO and NMHC standards is also CDPF. The technology is currently available but requires ULSD in order to achieve these levels of reductions. Furthermore, engine manufacturers will require time to incorporate the technology on all of their engines. Taking into account when ULSD fuel will be fully available and allowing manufacturers time to incorporate CDPF technology on their stationary engines, EPA believes that the implementation schedule already promulgated for nonroad diesel engines is appropriate for the majority of stationary CI ICE as well.

Prior to the implementation of standards based on the use of CDPF, new stationary CI ICE engines will be required to meet standards based on the use of technology currently required for nonroad engines. Engine manufacturers would be expected to use a variety of engine technologies such as combustion optimization and advanced fuel injection controls to reduce emissions of PM until ULSD fuel is available in sufficient quantities nationwide.

For NO_X emissions from non-emergency engines greater than or equal to 75 HP and less than or equal to 750 HP with a displacement of less than 10 liters per cylinder, and non-emergency generator set (genset) engines greater than 750 HP with a displacement of less than 10 liters per cylinder, the technology that is the basis of the proposed NO_X standards is NO_X adsorber. The NO_X adsorber technology is expected to be able to achieve NO_X reductions of 90 percent or more when applied to stationary CI ICE. The NO_X adsorber technology, which has been demonstrated in laboratory situations, is currently being developed for highway and nonroad engines, and it is expected to be available for nonroad and stationary engines approximately in the year 2011. As with the implementation schedule for CDPF discussed above, EPA believes that, taking into account when ULSD fuel will be fully available and allowing manufacturers time to incorporate NO_X adsorber technology on their stationary engines, the implementation schedule already promulgated for nonroad diesel engines is appropriate for the majority of stationary CI ICE as well.

For non-emergency engines greater than 750 HP with a displacement of less than 10 liters per cylinder that are not genset engines, the technologies that are the basis of the proposed NO_X standards are improved combustion systems and engine-based NO_X control technologies. For the nonroad diesel engine rule, EPA decided to defer a decision on setting

[1] Emissions of HAP from stationary reciprocating internal combustion engines (RICE) located at major sources were the subject of a 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.

add-on control based emission standards for NO_X for these engines to allow time to resolve issues involved with applying NO_X control technologies to these engines. For stationary CI ICE, EPA believes there may be technologies to allow more stringent standards for engines greater than 750 HP with a displacement of less than 10 liters per cylinder that are not generator sets that could be based on the use of aftertreatment-based controls. The EPA is requesting comments on whether it should have the same BDT for NO_X for all non-emergency stationary CI engines greater than 750 HP with a displacement of less than 10 liters per cylinder.

Both CDPF and NO_X adsorbers require the use of ULSD fuel to achieve maximum levels of emission reduction. The EPA recently promulgated regulations that require sulfur levels for nonroad diesel fuel to be reduced to 500 parts per million (ppm) beginning in late 2007 and 15 ppm beginning in late 2010.[2] Based on an analysis of ULSD availability EPA conducted for stationary CI ICE affected by the NSPS, the EPA believes that ULSD will be available in sufficient supply for stationary CI engines affected by the proposed rule. For information on EPA's fuel availability analysis, please refer to the docket for the proposed rule. For this reason, EPA is proposing that owners and operators of stationary CI engines affected by the proposed rule that use diesel fuel use only ULSD fuel beginning October 1, 2010. Owners and operators that use diesel fuel will be required to only use diesel fuel with a sulfur content of 500 ppm or less beginning October 1, 2007. This is consistent with fuel levels required by the nonroad rule for diesel engines. The use of lower sulfur diesel fuel will reduce emissions of SO_2 and the resulting sulfate PM to the atmosphere.

Prior to the commercial availability of ULSD fuel and NO_X adsorber technology, non-emergency stationary CI engines are expected to use the technologies currently required for nonroad engines. The EPA looked at other control techniques such as selective catalytic reduction (SCR) for non-emergency engines greater than or equal to 75 HP with a displacement of less than 10 liters per cylinder that could reduce emissions until ULSD fuel becomes available in sufficient quantities for stationary engines and before NO_X adsorbers are expected to be commercially available for use. No other add-on control techniques were identified as BDT. Engine manufacturers are currently in the process of developing a variety of engine technologies, such as cooled exhaust gas recirculation (EGR), to meet the Tier 3 nonroad emission standards for NO_X, which are phased in starting from 2006 to 2008. These engine technologies are determined to be the BDT for stationary CI ICE with a displacement of less than 10 liters per cylinder in the Tier 3 timeframe. Engine manufacturers have developed engine technologies such as combustion optimization and advanced fuel injection controls to meet EPA's Tier 2 limits for nonroad diesel engines. These engine technologies are also being applied to stationary engines.[3] The EPA believes that these technologies are the BDT for the time frame of the Tier 2 standards for these engines, except as discussed below for engines manufactured prior to the 2007 model year.

For NO_X emissions from engines below 75 HP, EPA has determined that the BDT is the variety of engine technologies currently being developed and used by engine manufacturers to reduce NO_X. Examples include cooled EGR, uncooled EGR, and advanced in-cylinder technologies relying on electronic fuel systems and turbocharging. The EPA does not believe that the catalyst-based NO_X technologies have matured to a state where we can have substantial assurance that such technologies will provide a path for compliance for engines in this power category and of this displacement.

3. Pre-2007 Model Year Stationary CI ICE

The proposed standards require engine manufacturers to meet the Tier 2 through Tier 4 nonroad diesel engine standards for their 2007 model year and later non-emergency stationary CI ICE less than 10 liters per cylinder. Stationary ICE are almost all manufactured products that are designed in advance that cannot change design without some lead-time. Given that stationary CI ICE are similar to nonroad diesel engines and their emission control strategies would be similar, the EPA believes that 18 months from the date of proposal is appropriate lead-time for engine manufacturers to meet standards equal to those in effect (or coming into effect) for nonroad engines. However, because stationary CI ICE were not subject to these emissions standards until this rule, the EPA cannot immediately require that these engines produce emissions on the same level required for nonroad engines. Sufficient lead-time must be provided to allow engine manufacturers to modify their production to incorporate these emission reduction strategies in all of their stationary CI ICE in order to meet the proposed emission standards.

For pre-2007 model year stationary CI ICE, the BDT was determined to be the nonroad Tier 1 emission levels. As explained, engine manufacturers will require time to design their engines and incorporate the control technologies that are the basis for nonroad diesel engine Tiers 2 through 4. Manufacturers will also need time to generate and provide the requisite data and other information needed to insure that their engines meet these standards. Manufacturers would therefore not necessarily be able to meet the Tier 2, Tier 3, and Tier 4 emission standards for stationary CI ICE immediately after the rule goes into effect. The BDT for these pre-2007 model year engines is therefore the Tier 1 standards for nonroad engines, which do not require as significant a revision to manufacturing processes as the more stringent regulations and which are currently being met by many stationary engines. Furthermore, EPA is not requiring engines manufactured prior to April 1, 2006 to meet the Tier 1 standards, given that even the less substantial requirements needed to meet the Tier 1 standards would be extremely difficult to achieve in the immediate near term for engines that had not previously been manufactured to meet those standards.

4. Non-Emergency Stationary CI ICE ≥10 and <30 Liters per Cylinder

For 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, the technology that is the basis of the proposed standards is the same technology used by manufacturers of new marine CI engines to meet the emission standards for those engines. Engines with a displacement in this range are generally not used in land-based nonroad applications and are significantly different in design from land-based nonroad engines. Those engines in this displacement range that are currently certified would generally be certified to marine standards, not

[2] The deadlines are different for refineries, wholesalers, retailers, and end users.

[3] An exception to this is stationary engines above 3000 HP with a displacement of less than 10 liters per cylinder. These engines are not as closely related to nonroad engines of that horsepower range as are other stationary engines, and have not necessarily been manufactured using similar technologies. Therefore, we believe that it will take longer for these engines to be able to meet standards equivalent to nonroad engines. We are therefore requiring Tier 1 standards (as opposed to Tier 2 standards, which nonroad engines of that HP will have to meet) for these engines until the 2011 model year.

land based nonroad standards. The EPA believes these engines are similar in design to marine CI engines and is therefore basing the proposed standards for non-emergency stationary CI ICE with a displacement between 10 and 30 liters per cylinder on the technologies that are used to meet the emission standards for marine CI engines. These technologies include timing retard, advanced fuel injection systems, optimized nozzle geometry, and possibly through rate shaping.

5. Stationary CI ICE With a Displacement ≥30 Liters per Cylinder

For non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, the technology that is the basis of the proposed NO_X standards is SCR. This technology is capable of reducing NO_X emissions by 90 percent or more, is currently available, and is a well-proven control technology for larger stationary CI engines.[4] The technology that is the basis of the proposed PM standards for non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder is electrostatic precipitators (ESP). The technology is currently available and is capable of reducing PM emissions by 60 percent or more from stationary CI ICE.

6. Low Sulfur Diesel for All Stationary CI ICE

For all stationary CI ICE, the use of lower sulfur fuel was determined to be the BDT for SO_X. Reducing the sulfur content in the diesel fuel directly affects the engine-out levels of SO_X emissions. As mentioned, the proposed rule requires that owners and operators that use diesel fuel begin using 500 ppm sulfur diesel fuel starting October 1, 2007 and 15 ppm sulfur diesel fuel starting October 1, 2010. These fuel requirements are consistent with the requirements of the nonroad diesel rule.

7. Emergency Stationary CI ICE

The EPA also evaluated the BDT for emergency stationary CI ICE. An emergency stationary internal combustion engine is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing. 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 is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Examples also include stationary ICE used during Federal or State declared disasters and emergencies, and simulations of emergencies by Federal, State, or local governments. Emergency stationary ICE are allowed to be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units is limited to 30 hours per year, and owners and operators are required to keep records of this information. There is no time limit on the use of emergency stationary ICE in emergency situations. The use of add-on controls such as CDPF, oxidation catalyst, and NO_X adsorber could not be justified as BDT due to the cost of the technology relative to the emission reduction that would be obtained. This is discussed in more detail later in this preamble and in the documents supporting the proposal. The EPA, therefore, determined that the engine technologies developed by engine manufacturers to meet the Tier 2 and Tier 3 nonroad diesel engine standards, and those Tier 4 standards that do not require aftertreatment, are the BDT for 2007 model year and later emergency stationary CI ICE with a displacement of less than 10 liters per cylinder. These technologies have been discussed previously in this section. As mentioned earlier, stationary CI ICE with a displacement between 10 and 30 liters per cylinder are similar to marine CI engines, and EPA believes it is appropriate to rely on the technologies used to meet Tier 2 emission standards for marine CI engines. Therefore, for 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 and less than 30 liters per cylinder, the basis for the BDT are the technologies used to meet Tier 2 emission standards for marine CI engines.

D. What Sources Are Subject to the Proposed Rule?

The affected source for the CI internal combustion engine NSPS is each stationary CI internal combustion engine whose construction, modification or reconstruction commenced after the date the proposed rule is published in the **Federal Register**. The date of construction is the date the engine is ordered by the owner or operator. As discussed earlier, we are proposing that stationary CI ICE manufactured prior to April 1, 2006 that are not fire pump engines will not be subject to Tier 1 standards, unless they are modified or reconstructed after the date of proposal. Stationary fire pump CI ICE manufactured prior to July 1, 2006 will not be subject to Tier 1 standards, unless they are modified or reconstructed after the date of proposal.

E. What Are the Proposed Standards?

1. Overview

The format of the proposed standard is an output-based emission standard for PM, NO_X, 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 HP only. Tier 4 limits for nonroad engines are phased in beginning in 2008.

2. Proposed Standards for Engine Manufacturers

Engine manufacturers must meet the emission standards of the proposed 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 proposed 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.

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[4] SCR is also a proven technology for smaller engines and may be used to meet the NO_X standards for those engines. However, it was not determined to be the BDT for smaller engines due to the expected availability of NO_X adsorber, which achieves similar reductions to SCR at a lower cost.

Table 1. NO_x, 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

Maximum Engine Power	Model Year(s)	NMHC + NO_x	NMHC	NO_x	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)
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)				0.30 (0.22)[a]
	2013+					0.03 (0.02)

Maximum Engine Power	Model Year(s)	NMHC + NO_x	NMHC	NO_x	CO	PM
56≤KW<75 (75≤HP<100)	2007	7.5 (5.6)	-	-	5.0 (3.7)	0.40 (0.30)
	2008-2011	4.7 (3.5)				
	2012-2013	-	0.19 (0.14)[b]	0.40 (0.30)[b]		0.02 (0.01)
	2014+		0.19 (0.14)	0.40 (0.30)		
75≤KW<130 (100≤HP<175)	2007	4.0 (3.0)	-	-	5.0 (3.7)	0.30 (0.22)
	2008-2011					
	2012-2013		0.19 (0.14)[b]	0.40 (0.30)[b]		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	-	0.19 (0.14)[b]	0.40 (0.30)[b]		0.02 (0.01)
	2014+		0.19 (0.14)	0.40 (0.30)		
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)

Maximum Engine Power	Model Year(s)	NMHC + NO_x	NMHC	NO_x	CO	PM
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)

[a] 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.
[b] 50 percent of the engines produced have to meet the NOx · NMHC standard, and 50 percent have to meet the separate NOx and NMHC limits.

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b. 2007 Model Year and Later Non-Emergency Stationary CI ICE >3,000 HP and With a Displacement <10 Liters per Cylinder. The proposed 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_X, 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_X	HC	NO_X	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 proposed 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_X, 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_X	CO	PM
5.0≤displacement<15.0, All Power Levels	7.8	5.0	0.27

TABLE 3.—NO_X, 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—Continued

Engine size—liters per cylinder, rated power	THC + NO_X	CO	PM
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. The proposed 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 2007–2010 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 2007 model year and later emergency fire pumps to the emission standards shown in table 4 of this preamble.

3. Proposed Standards for Owners and Operators

Owners and operators of stationary CI ICE are required to meet the emission standards in the proposed 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_X limits: 17.0 g/KW-hr (12.7 g/HP-hr) when the maximum test speed is less than 130 revolutions per minute (rpm); $45.0 \times N^{-0.20}$ 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 2007 model year and later stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must purchase an engine that is certified by the manufacturer according to the provisions of the proposed 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_X emissions by 90 percent or more, or alternatively they must limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to 0.40 grams per KW-hour (0.30 grams per HP-hour). 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 0.12 grams per KW-hour (0.09 grams per HP-hour).

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

The proposed 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 maximum engine power. Starting with 2007 model year engines, 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. Although the fire pump engine manufacturers and installers have indicated that the provisions of the proposed rule will not reduce the reliability of fire pump engines, we are asking for comments on whether there are any concerns regarding fire pump reliability.

TABLE 4.—NO_X, 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_X	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+[a]	4.7 (3.5)		0.30 (0.22)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)

TABLE 4.—NO_X, NMHC, CO, AND PM EMISSION STANDARDS IN G/KW-HR (G/HP-HR) FOR EMERGENCY FIRE PUMP ENGINES—Continued

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
	2011+ [a]	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+ [a]	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+ [a]	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+ [a]	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)

[a] 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 proposed 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 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 stationary CI ICE that use diesel fuel must only use diesel fuel meeting the requirements of 40 CFR 80.510(b), 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 proposed rule does not contain a standard for SO_2; the use of low sulfur diesel fuel will result in lower emissions of SO_2.

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 until the year 2010, which will allow adequate time for manufacturers of these large stationary engines to test the operation of the engines on ULSD. The EPA does not expect that the lubricity of the ULSD will be an issue because additives can be added to ULSD to achieve a sufficient lubricity.

F. What Are the Requirements for Sources That Are Modified or Reconstructed?

The proposed standards apply to stationary CI ICE that are modified or reconstructed after the date the proposed rule is published in the **Federal Register**. 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.

G. What Are the Requirements for Demonstrating Compliance?

1. Engine Manufacturers

Manufacturers of stationary CI ICE must demonstrate compliance with the rule, as proposed, by certifying that their 2007 model year and later stationary CI ICE meet the emission standards in the 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 may use the optional test cycle provided in table 4 of the proposed rule. Manufacturers of certified stationary CI ICE 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, or 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 that certify an engine family or families to standards under the proposed 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 averaging, banking, and trading 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 the these engine families are certified are at least equal to the appropriate standards. The banking program allow 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 Clean Air Act 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 proposed standards reflect best demonstrated technology. 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 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 today's proposed 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 proposed 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 being proposed in this program affecting a large number of engine families. We welcome comments on the appropriateness of allowing for averaging, banking and trading under this program.

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

EPA is proposing 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 today's proposed rule. We have proposed that these engines are to be subject to the same general compliance regime as land-based nonroad CI engines and, for those with a displacement greater than 10 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 today's proposed 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. 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 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 owner or operator may also choose to conduct an initial performance test to demonstrate compliance with the emission standards. The records which indicate that the engine is complying with the emission standards of the proposed 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 IIII, 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 proposed 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 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.

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). 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 following NTE standards:

NTE = (STD) × (M)

Where:

NTE = The NTE emission standard for each pollutant.

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

M = 1.25.

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, and 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_X and PM emission standards are achieved.

H. What Are the Monitoring Requirements?

Owners and operators of stationary CI ICE that are equipped with 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 non-emergencies.

I. 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 in non-emergency service. Records of hours of operation during emergencies are not required.

IV. Rationale for Proposed Rule

A. How Did EPA Determine the Source Category for the Proposed Rule?

Under section 111 of the CAA, 42 U.S.C. 7411, the Administrator is required to publish, and periodically update, a list of source categories that in his or her judgement cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. This list appears in 40 CFR 60.16. The list reflects the Administrator's determination that emissions from the listed source categories contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare, and it is intended to identify major source categories for which standards of performance are to be promulgated.

The EPA has determined that for purposes of promulgating NSPS regulations, the stationary internal combustion engine source category should be split into two source categories—CI engines and SI engines. The reason for dividing the source category is that EPA will require more time to develop a regulation for SI engines than for CI engines. At the outset of the proposed rulemaking process, the EPA had more information available for CI engines than for SI engines due to other regulatory actions and information gathering activities for CI engines by EPA, as well as States and groups of States. It will take longer to collect and analyze information for SI engines, and EPA will, therefore, need more time to develop a regulation for SI engines.

B. How Did EPA Select the Pollutants To Be Regulated?

New source performance standards are developed under the authority of section 111 of the CAA. Emissions of criteria pollutants (those pollutants identified under section 110 of the CAA) are generally regulated under section 111, while HAP are regulated under section 112 of the CAA. Emissions from stationary CI ICE contribute significantly to air pollution and cause adverse health and welfare effects associated with ozone, PM, NO_X, SO_X, CO, and NMHC.

Nitrogen oxides are listed as criteria pollutants and are regulated due to their contribution to the formation of ozone. Nitrogen oxides are precursors to ozone formation. Exposure to ozone has been linked to health and welfare impacts. Health and welfare risks include impaired respiratory function, eye irritation, deterioration of materials such as rubber, and necrosis of plant tissue. Nitrogen oxides are one of the major pollutants emitted from stationary ICE and stationary ICE are considered to cause or contribute significantly to nationwide releases of NO_X emissions. By reducing emissions of NO_X, substantial benefits to public health and welfare and the environment will be realized.

Particulate matter is listed as a criteria pollutant and is regulated by this action. Emissions of PM lead to adverse health and welfare effects. Health effects associated with ambient PM include premature mortality, aggravation of respiratory and cardiovascular disease, aggravated asthma, and acute respiratory symptoms. By controlling the emissions of PM, the risk of areas failing to attain or maintain compliance with the National Ambient Air Quality Standards (NAAQS) for PM is reduced.

Sulfur oxides have been identified as criteria pollutants and are addressed in the proposed rule through fuel use requirements. Sulfur dioxide and sulfate PM are emitted as a result of sulfur in the diesel fuel used by stationary CI ICE.

By controlling the sulfur level in diesel fuel, levels of air pollution will be reduced and public health and welfare will be improved. Restrictions on fuel use will also assist areas currently in nonattainment with the SO_2 standard to comply with the NAAQS standard for SO_2.

Emissions of NMHC from stationary CI ICE contribute to the formation of ozone. In addition, emissions of NMHC include air toxics such as benzene, formaldehyde, acetaldehyde, 1,3-butadiene, and acrolein. These substances are known or suspected as being human or animal carcinogens, or having noncancer health effects such as irritation or corrosion of the eyes, nose, throat, and lungs; pulmonary and respiratory problems; and dermatitis and sensitization of the skin and respiratory tract. Stationary CI ICE contribute to nationwide releases of NMHC emissions. Substantial benefits to public health and welfare and the environment will be realized by reducing emissions of NMHC.

Carbon monoxide is a criteria pollutant and is considered harmful to public health and the environment. Carbon monoxide has been linked to increased risk for people with heart disease, reduced visual perception, cognitive functions and aerobic capacity, and possible fetal effects. Stationary CI engines are major contributors to emissions of CO and are considered to contribute to several areas failing to attain the NAAQS for CO. Reductions of CO proposed by the proposed rule will improve public health and welfare.

In addition to the health effects described above, pollution from stationary diesel engines also significantly contributes to visibility effects. Visibility is defined as the degree to which the atmosphere is transparent to visible light. Fine particles are the major contributors to reduced visibility. By implementing emission standards for stationary diesel engines as proposed by the proposed rule, improvements in visibility will be experienced.

Other potential effects associated with these pollutants from stationary diesel engines include acid deposition, eutrophication, soiling, and material damage. Acid deposition, or acid rain occurs when SO_2 and NO_X are released into the atmosphere and react with water, oxygen, and oxidants. Acid rain contributes to damage of the environment including damage to trees, lakes, and streams, in addition to affecting building materials, accelerating the decay of structures. By reducing SO_2 and NO_X emissions, the sulfur and nitrogen acid deposition will also be reduced. Eutrophication is the accelerated production of organic matter, particularly algae in water bodies. The increased level of algae can cause adverse ecological effects, including reduced light and oxygen levels, which affect fish, plants, and other organisms that are habitants in water bodies. Deposition of airborne particles, which can lead to accumulation of particles (soiling) on surfaces can cause structural damage by means of corrosion or erosion. The proposed rule should decrease the levels of soiling by reducing the level of PM that is emitted from stationary diesel engines. The use of CDPF by engines affected by the proposed rule will also result in reductions of gaseous HAP.

C. How Did EPA Determine the Best Demonstrated Technology?

1. Background

To determine the BDT for the proposed rule, EPA first analyzed the emission control strategies selected for the nonroad CI engine rule. The EPA concluded that the level and implementation timing of the nonroad CI engine standards are the most challenging that can be justified.

Engine manufacturers have indicated to EPA that, in many cases, they do not separately design and manufacture CI engines for stationary use. The manufacturers usually sell the same CI engines for use in mobile nonroad equipment as those used in stationary applications. Emissions from stationary CI ICE would, therefore, tend to decline with the implementation of EPA's nonroad diesel engine standards. However, there are certain engine classes produced that are not sold into the nonroad sector but are strictly used for stationary purposes, in particular very large engines. There are also several families of stationary engines that have not been modified to meet nonroad standards, even for smaller engines. Therefore, there will be certain engines that will be used for stationary purposes that have not been certified through the nonroad rule.

The EPA is proposing that stationary engine manufacturers begin certifying stationary CI engines to Tier 2 and Tier 3 nonroad CI engine levels, or Tier 2 marine CI engine levels, where applicable, starting with 2007 model year engines, in order to provide sufficient time for these manufacturers to put the certification regime in place for stationary engines.

2. Stationary CI ICE With a Displacement <10 Liters per Cylinder

The Tier 2 and Tier 3 nonroad CI engine standards are based on engine-based, as opposed to aftertreatment-based, technologies. Technologies being used to meet the Tier 2 limits are combustion optimization and advanced fuel injection controls. At the time that the Tier 3 limits were promulgated, it was believed that technologies being developed for highway diesel engines, especially cooled EGR, would be applied to nonroad engines in order to meet the Tier 3 limits. The Tier 3 limits will be phased in starting in 2006, and EPA has concluded that engine manufacturers will use a variety of engine control techniques to meet the Tier 3 limits. These techniques include charge air cooling, fuel injection rate shaping and multiple injections, injection timing retard, EGR, induced mixing/charge motion, control of air-to-fuel ratio, and control of oil consumption. Since stationary CI engines are similar to nonroad engines, EPA believes that these engine technologies used for the Tier 2 and Tier 3 standards are the BDT during the timeframe of the Tier 2 and Tier 3 rules for 2007 model year and later engines with a displacement of less than 10 liters per cylinder. This determination is applicable for both emergency and non-emergency engines with a displacement of less than 10 liters per cylinder, since the technology is a part of the engine and is the same no matter what the engine will be used for.

In June of 2004, EPA promulgated Tier 4 standards for nonroad diesel engines (69 FR 38957), which begin to take effect in a staged fashion beginning in 2008. The Tier 4 standards are based on the use of advanced emission control technologies for nonroad diesel engines. For PM, CO, and NMHC, EPA projects that CDPF is the technology that will ultimately be used to meet the nonroad diesel engine emission standards for engines greater than or equal to 25 HP and with a displacement less than 10 liters per cylinder. Catalyzed diesel particulate filters have been demonstrated to achieve reductions of greater than 90 percent for PM, CO, and NMHC for stationary CI ICE. The technology requires ULSD fuel in order to achieve those levels of reductions. The CDPF technology also reduces emissions of gaseous HAP. The EPA did not set standards based on the use of CDPF for nonroad diesel engines less than 25 HP. The PM standards for these small engines are based on the use of oxidation catalyst control and engine optimization. The EPA stated that the

reason it did not set more stringent PM standards was due to the cost of implementing CDPF on these engines, especially considering the prerequisite need for electronic fuel control systems to facilitate regeneration. The EPA plans to conduct a technology review for these small engines in the future and make a determination at that time if more stringent standards are appropriate.

For the nonroad CI engine NO_X Tier 4 emission standards for engines greater than or equal to 75 HP, EPA projects that the technology that will be used is NO_X adsorber, a catalyst technology for removing NO_X in a lean exhaust environment. This technology has been demonstrated to be effective in several studies, but is not expected to be used commercially until 2007 at the earliest, in part because the technology can only operate effectively if the engine is using ULSD fuel. Emissions reductions from NO_X adsorbers are expected to be greater than 90 percent for NO_X; however, ULSD fuel is required to achieve these reductions. For nonroad engines smaller than 75 HP, EPA did not set more stringent standards based on the use of NO_X aftertreatment because EPA could not determine that NO_X adsorbers were feasible, considering cost, for these engines.

Applying NO_X adsorbers to all nonroad and stationary diesel engines is complex and will require a high level of engine and aftertreatment integration. Diesel engines greater than 75 HP and with a displacement less than 10 liters per cylinder are similar to highway diesel engines, and the implementation of NO_X adsorbers on highway engines will provide the information on how successful integration will be and is key to how the integration process will work for nonroad and stationary engines. Experience associated with the implementation of advanced controls on smaller nonroad engines (less than 75 HP) is significantly less than the experience already developed for larger engines. The EPA, therefore, did not set standards based on NO_X adsorbers for smaller nonroad diesel engines but relied on on-engine controls. The EPA plans to conduct a technology review in the future for nonroad diesel engines less than 75 HP to assess engine and emission control technologies at that point, and it is expected that the findings of this review will apply to stationary engines as well. Also, the EPA is deferring a decision on setting aftertreatment-based NO_X standards for engines that are larger than 750 HP and not used as generator sets. The delay will provide additional time to evaluate the technical issues involved in adapting NO_X adsorber technology to these applications. The Tier 4 NO_X standard for engines larger than 750 HP not used as generator sets is therefore based on proven engine-based NO_X control technologies, rather than NO_X adsorber.

In addition to the technologies that are the basis for the nonroad engine emission standards, EPA evaluated other currently available add-on emission controls for NO_X, CO, NMHC, and PM. Two other technologies were identified: SCR for NO_X emissions and oxidation catalyst for other emissions. Selective catalytic reduction can reduce NO_X emissions by more than 90 percent, a similar level of performance to NO_X adsorbers. The cost of SCR is significantly higher than for NO_X adsorber. In addition, for the nonroad emission standards, EPA indicated that it had significant concerns with SCR, which is a technology that requires extensive user intervention to operate properly and the lack of the urea delivery infrastructure that is necessary to support the technology. For the nonroad emission standards for diesel engines, EPA concluded that SCR is not likely to be available for general use for the timeframe of the Tier 4 emission standards. However, EPA did not exclude the possibility that certain installations may use SCR to comply with the emission standards, but the feasibility and cost analysis for nonroad diesel engines was not based on the use of SCR. The EPA believes that the conclusions drawn for nonroad diesel engines also apply to stationary diesel engines. It is likely that SCR may be applied more to stationary engines than nonroad engines; however, the limitations that EPA has identified for nonroad diesel engines also affect stationary engines. As with nonroad engines, EPA does not preclude the possibility that certain installations may rely on the use of SCR to comply with the Tier 4 NO_X emission standards. For non-emergency stationary CI engines with a displacement less than 10 liters per cylinder, the EPA, therefore, determined that NO_X adsorber is the BDT for control of NO_X emissions because it achieves similar reductions to SCR at a lower cost.

Oxidation catalysts can achieve the same level of control of CO and NMHC as CDPF, but only reduce PM emissions by approximately 20 to 50 percent when used with 500 ppm sulfur diesel fuel. No other technologies were identified for control of PM. The EPA, therefore, concluded that for non-emergency stationary CI engines greater than or equal to 25 HP and with a displacement less than 10 liters per cylinder, CDPF is the BDT for CO, NMHC, and PM because it achieves the same CO and NMHC emission reduction as oxidation catalyst and achieves a significantly higher PM reduction than oxidation catalyst. The EPA could not justify selecting CDPF or oxidation catalyst as the BDT for emergency engines due to the cost of aftertreatment compared to the amount of pollutant reduced. Further information regarding EPA's analysis is presented in a memorandum included in the docket (Docket ID. No. OAR–2005–0029).

For emergency stationary CI engines, the cost of NO_X adsorber was compared to the amount of NO_X that will be reduced, and it was determined that the relatively high cost as compared to the amount of NO_X reduced did not justify the selection of NO_X adsorber for emergency engines. Emergency stationary CI ICE are only operated for a few hours each year and, therefore, emissions from these engines are relatively low compared to emissions from non-emergency engines. Additional information on EPA's analysis is presented in a memorandum included in the docket (Docket ID. No. OAR–2005–0029).

3. Stationary CI ICE With a Displacement ≥10 and <30 Liters Per Cylinder

Stationary CI ICE with a displacement between 10 and 30 liters per cylinder are more similar to marine CI engines than land-based CI engines. For stationary CI ICE with a displacement of greater than or equal to 10 and less than 30 liters per cylinder, we, therefore, believe it is appropriate to rely on the technologies used to meet the Tier 1 and 2 emission standards for marine CI engines. Marine CI engines of this displacement are categorized as category 2 marine engines. More specifically, category 2 means relating to a marine engine with a specific engine displacement greater than or equal to 5 liters per cylinder but less than 30 liters per cylinder. The EPA expects that category 2 marine diesel engines will use the same technologies that are relied upon for category 1 engines. Category 1 marine engines are those marine engines that are greater than or equal to 37 KW (50 HP) with a displacement of less than 5 liters per cylinder. In general, EPA believes that many of the control technologies that are expected to be used on nonroad CI engines to meet Tier 2 and Tier 3 nonroad CI emission standards and those used on locomotives to meet Tier 2 locomotive emission standards, will also be used on marine engines since marine engines are derived from land-based engines. For category 2 marine engines, EPA expects

that timing retard, advanced fuel injection systems, optimized nozzle geometry, and possibly through rate shaping may be used to meet the Tier 2 marine standards. The EPA also anticipates that manufacturers of category 2 marine engines will increase the use of electronic engine management controls. Additional reductions in NO_X, PM, CO, and HC can be achieved through electronic controls. Furthermore, the EPA expects that category 2 marine engines will be turbocharged and aftercooled. The EPA believes the control strategies relied upon to meet Tier 1 and 2 marine emission standards will be appropriate for stationary CI ICE with a displacement between 10 and 30 liters per cylinder and, therefore, chose the technologies anticipated to be used to comply with Tier 1 and 2 marine emission standards as the BDT for stationary CI ICE of this displacement.

Though EPA is not proposing aftertreatment-based standards for these engines at this time, we are currently reviewing the possibility of promulgating more stringent standards for marine engines similar to the Tier 4 standards promulgated for land based nonroad CI engines. In that context, we will review whether such technologies are appropriate for stationary CI ICE with a displacement between 10 and 30 liters per cylinder. The NSPS for such engines may, therefore, be revised at that time to require more stringent standards in the future.

For emergency stationary CI ICE with a displacement of greater than or equal to 10 and less than 30 liters per cylinder, the basis for the BDT are the same technologies as discussed above that are used to comply with Tier 2 marine emission standards.

4. Stationary CI ICE With a Displacement ≥30 Liters Per Cylinder

For stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, EPA evaluated currently available control technologies for NO_X and PM. The EPA identified SCR and ESP as feasible control options for these engines. Selective catalytic reduction has been available for several years and is a well-proven technology on stationary ICE using diesel fuel. Information provided by manufacturers of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder indicated that the technology is capable of reducing NO_X emissions by more than 90 percent. The EPA considered NO_X adsorbers; however, the technology is still under development, and its applicability to very large engines is unknown. No other technologies were identified for control of NO_X and SCR was chosen as the BDT for stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder. For PM, the EPA chose ESP as the BDT for engines with a displacement at or above 30 liters per cylinder. Information provided by manufacturers of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder indicated that the technology can reduce PM emissions by at least 60 percent on large industrial applications. The EPA evaluated CDPF but concluded that the feasibility of applying particulate filters to engines of such large displacement, and, in turn, also size, has not been shown. This conclusion is consistent with information gathered from CDPF control technology vendors who believe that it is not possible to apply CDPF to such large engines. No other feasible technologies were identified for the control of PM from these engines, and ESP was selected as the BDT for PM for engines with a displacement greater than or equal to 30 liters per cylinder.

D. How Did EPA Select the Affected Facility for the Proposed Rule?

The choice of the affected facility for an NSPS is based on the Agency's interpretation of section 111 of the CAA. Under section 111, the NSPS provisions must apply to any new source owned or operated in the United States. The ''new source'' means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

The term ''stationary source'' means any building, structure, facility, or installation which emits or may emit any air pollutant. Most industrial plants, however, consist of numerous pieces or groups of equipment which emit air pollutants, and which might be viewed as ''sources.'' The EPA uses the term ''affected facility'' to designate the equipment, within a particular kind of plant, which is chosen as the ''source'' covered by a given standard.

In choosing the affected facility, the EPA must decide which pieces or groups of equipment are the appropriate units for separate emission standards in the particular industrial context involved and in light of the terms and purpose of CAA section 111. One major consideration in this examination is that the use of a broader definition means that replacement equipment is less likely to be regulated under the NSPS; if, for example, an entire plant was designated as the affected facility, no part of the plant would be covered by the standard unless the plant as a whole was ''modified.'' Because the purpose of section 111 is to minimize emissions by the application of the best demonstrated control technology (considering cost, other health and environmental effects, and energy requirements) at all new and modified sources, there is a presumption that a narrower designation of the affected facility is appropriate. This ensures that new emission sources within plants will be brought under the coverage of the standards as they are installed. This presumption can be overcome, however, if the Agency concludes that the relevant statutory factors (technical feasibility, cost, energy, and other environmental impacts) point to a broader definition.

For the proposed rule, the EPA did not see any reason to use a broader definition for the affected facility and has, therefore, designated each individual engine as the affected facility. Each engine must meet the certification requirements under this rule. A site or engine manufacturer with multiple engines could have different compliance requirements for each engine, depending on the engine size, age, and application. Use of the broader definition of affected source could require complex aggregate compliance determinations. The EPA feels such complicated compliance determinations to be impractical, and, therefore, has decided to adopt a definition which establishes each individual engine as the affected source.

The EPA is regulating engine manufacturers in the proposed rule by requiring that they certify their 2007 model year and later stationary CI engines to emission standards that have already been promulgated for nonroad CI engines, or to the emission standards for marine CI engines if the engines have a displacement greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. The vast majority of stationary CI engines are consumer products produced in mass quantities. The EPA estimates that more than 60,000 stationary CI engines will be produced every year starting in 2007 and increasing thereafter. For further information on EPA's stationary CI engine projection estimates, please refer to the docket for the proposed rule. Internal combustion engines have traditionally been regulated through the manufacturer for purposes of meeting mobile source regulations and manufacturers have years, and decades in many cases, of experience complying with such standards. It is infinitely

simpler, more reliable, and comparatively inexpensive to regulate stationary CI engines employing the same regime as for mobile sources than to create a new regime based on testing by every owner and operator, and it is within our authority for establishing standards of performance under CAA section 111 to require manufacturers to meet such standards. Section 111(b) provides EPA with authority to promulgate new source performance standards and nothing in section 111 prevents EPA from applying such new source performance standards to manufacturers, where appropriate. The EPA has previously regulated wood stoves under section 111 of the CAA using similar procedures (53 FR 5860). The EPA, therefore, believes it is appropriate to propose that this section 111 NSPS be primarily directed at regulating engine manufacturers, rather than individual owners and operators.

The EPA is primarily regulating manufacturers of stationary CI engines. However, EPA is also imposing certain requirements on owners and operators of stationary CI engines. Starting with 2007 model year engines, owners and operators are required to buy certified engines. Owners and operators are also required to operate and maintain their stationary CI engines and control devices according to the manufacturer's instructions and guidelines to ensure that the engine functions properly, and that the required emission standards actually occur in use.

E. How Did EPA Select the Proposed Standards?

1. Introduction

The basis for the format of the proposed emission standards is primarily the nonroad CI engine rule. The EPA believes that it is appropriate to base the standards for most stationary CI engines on the nonroad CI engine standards because the design and emissions characteristics of the engines are very similar. In fact, engine manufacturers have indicated to EPA that in most cases they do not separately design and manufacture separate CI engines for stationary use. The engine manufacturers often sell the same CI engine for use in mobile nonroad equipment as they do for use in stationary applications. Most CI engines that are ultimately used in stationary applications are designed and built for use in both stationary and nonroad applications. All engines built for nonroad applications must be certified to meet EPA and California Air Resources Board (CARB) emission standards for nonroad mobile sources. However, there are certain engine classes and families produced that are not sold into the nonroad sector but are strictly used for stationary purposes. These engines would not be certified under the nonroad rule for CI engines. However, even for engines not currently certified to nonroad standards, these engines are very similar in design and in the method of manufacture to comparable nonroad land-based, or in the case of engines with displacement above 10 liters per cylinder, marine-based engines. This is why EPA is proposing that stationary engines be certified under the NSPS, following the certification protocols specified in the nonroad rules for diesel land-based engines, or marine-based engines.

The proposed standards for stationary CI ICE are output-based emission standards and are in units of emissions mass per unit work performed (g/KW-hr). The emission standards are phased in over several years and have Tiers with increasing levels of stringency. Engines are separated into engine power ranges, and some emission standards vary between ranges. The basis for this is EPA's analysis of the applicability of specific emission control strategies for each power range of engines. The Tier 2 and Tier 3 levels are based on the most advanced engine-based technologies available for the various engines classes in the timeframe of the nonroad diesel engine rulemaking. For most engines, the Tier 4 levels represent the emission reductions possible from the application of CDPF and NO_X adsorbers to the expected emission levels for the previous tier engines.

2. Engine Manufacturers

a. 2007 Model Year and Later Non-Emergency Stationary CI ICE With a Displacement <10 Liters per Cylinder. The EPA is proposing that engine manufacturers certify their 2007 model year and later stationary CI engines with a displacement less than 10 liters per cylinder to the certification emission standards for nonroad diesel engines for the same model year and maximum engine power for all pollutants. The EPA believes this requirement is appropriate and expects that engine manufacturers will use advanced engine-based technologies, as previously described, such as combustion optimization, advanced fuel injection controls, and other engine control technologies, similar to the technologies that nonroad engines will rely on, to meet Tier 2 and Tier 3 levels, and advanced aftertreatment controls to meet Tier 4 levels. Engine manufacturers will be required to certify their stationary CI engines to the appropriate tiers following the nonroad diesel engine schedule.

The EPA believes that a certification program that starts with 2007 model year engines will provide engine manufacturers and EPA with sufficient time to develop and implement a program to certify stationary CI ICE. The program will be based on the certification program for nonroad diesel engines for the majority of stationary engines.

The timing of the Tier 4 standards is closely tied to the availability of a sufficient amount of ULSD fuel, which is expected to be available in sufficient quantities for use in both stationary and nonroad engines at the time that the Tier 4 standards take effect for the nonroad CI rule. The Tier 4 rulemaking for nonroad diesel engines contains a two-step sulfur standard for nonroad diesel fuel. The sulfur content in the diesel fuel affects the level of pollution emitted by engines, and EPA expects that ULSD fuel will be necessary in order to meet the Tier 4 emission standards. Engine manufacturers will want the assurance that they will not be liable for emissions from engines that do not use the appropriate fuel for the emission control device. Similarly to nonroad diesel engines, the emission control technologies used on stationary CI engines to meet the Tier 4 limits also must be used with ULSD fuel. Therefore, EPA is proposing a diesel fuel standard for owners and operators of stationary CI engines that corresponds to the requirements for nonroad diesel fuel.

The earliest nonroad Tier 4 engine standards take effect in model year 2008, which is the first full model year for which 500 ppm sulfur will be required. The 2008 Tier 4 standards apply only to engines below 75 HP. Setting Tier 4 standards in 2008 for engines 75 HP and larger would not provide a sufficient period of stability (an element of lead time) between Tiers 2 and 3, which begin between 2006 and 2008, and Tier 4. Phasing in the Tier 4 standards for engines larger than 75 HP beginning in 2011 will provide adequate lead time for engine and equipment manufacturers, as well as diesel refiners. The Tier 4 standards are also phased in over time to allow for the orderly transfer of technology from the highway sector, and to spread the overall workload for engine and equipment manufacturers engaged in redesigning a large number and variety of products. The approach of implementing Tier 4 standards over years 2011–2013 provides 4 to 6 years of real world experience with the new technology in

the highway sector, involving millions of engines.

The EPA believes that engines in the 175 to 750 HP power range will have the most straightforward adaptation of control technologies from the highway sector, and, therefore, these engines are subject to the Tier 4 standards as soon as ULSD is required, *i.e.*, the 2011 model year. The EPA believes that engines 25 to 175 HP or greater than 750 HP may require a greater effort to adapt highway engine control technologies, and, therefore, the Tier 4 standards for these engines begin a year or two later than those for 175 to 750 HP. This phase-in of the limits will also spread the redesign workload for engine and equipment manufacturers.

Engines larger than 750 HP have been given more lead time than engines in other power categories to fully implement the Tier 4 standards, due primarily to the relatively long product design cycles typical of these high-cost, low-sales volume engines. For these large engines, the nonroad engine rule has limits for both genset applications and applications other than generator sets. The final Tier 4 NO_X standards for engines other than generator sets are less stringent than the final Tier 4 NO_X standards for generator sets greater than 750 HP and are not based on the use of add-on control.

The EPA believes it would be inappropriate in general to require Tier 4-level standards for stationary engines earlier (or later) than they are required for nonroad engines. As indicated, the technologies expected to meet the Tier 4 standards require the use of ULSD fuel, which cannot be guaranteed in levels needed to meet the nonroad and stationary engine demand before year 2010. Also, the concerns discussed above regarding phase-in of the Tier 4 standards for nonroad engines are equally true for stationary engines. Additionally, given that nonroad and stationary engines are generally built to the same specifications, it would be needlessly costly and complicated to require different timing for the implementation of the technology for the nonroad and stationary sectors.

However, EPA is requesting comments on one particular issue: whether it should apply the generator sets standards for NO_X for all stationary CI engines greater than 750 HP and with a displacement less than 10 liters per cylinder. As noted above, the final Tier 4 NO_X standards for engines other than generator sets are less stringent than the final Tier 4 NO_X standards for generator sets greater than 750 HP and are not based on the use of add-on control. Given that stationary ICE tend generally to be larger than nonroad engines, the effect of these less stringent standards may be more significant for the stationary engine sector than for the nonroad engine sector. Also, given that some of the concern indicated in the nonroad rule regarding the ability of these engines to use aftertreatment may be related to their mobility, which is obviously not relevant for stationary engines, a more stringent standard may be appropriate for at least some types of non-generator set stationary engines above 750 HP. The EPA believes there may be technologies to allow more stringent standards for engines greater than 750 HP and with a displacement less than 10 liters per cylinder that are not generator sets and is, therefore, requesting public comment on this issue.

The EPA is proposing that engine manufacturers certify their 2007 through 2010 model year stationary CI ICE that are greater than 3,000 HP and less than 10 liters per cylinder in displacement to the emission standards shown in table 2 of this preamble, which are essentially Tier 1 nonroad CI engine standards. Although the nonroad CI engine rule, as proposed, requires engines greater than 1,200 HP to meet Tier 2 emission standards, engine manufacturers indicated to EPA that they are unable to certify their stationary engines greater than 3,000 HP to Tier 2 emission standards according to the nonroad CI engine schedule, which applies to 2006 through 2010 model year engines. Engines greater than 3,000 HP with a displacement of less than 10 liters per cylinder are rarely used in nonroad applications, according to engine manufacturers, and those that are used are substantially different than the stationary engines of that size. These stationary engines have not been subject to the substantial research and development work needed to incorporate nonroad-based technologies. Manufacturers recommended that EPA allow manufacturers to meet Tier 1 standards in the interim years to allow manufacturers to focus on meeting the more stringent, Tier 4 emission standards. The EPA believes that the suggestion from engine manufacturers is appropriate and is, therefore, proposing that stationary CI ICE greater than 3,000 HP and having a displacement less than 10 liters per cylinder be certified to the emission standards shown in table 2 of this preamble, followed by Tier 4 certification as shown in table 1 of this preamble, according to the nonroad CI engine schedule. These engines would not be certified to Tier 2 emission standards, but would go directly from being certified to Tier 1 emission standards to being certified to Tier 4 emission standards.

b. 2007 Model Year and Later Non-Emergency Stationary CI ICE With a Displacement ≥10 and <30 Liters per Cylinder. The EPA is proposing that engine manufacturers who produce 2007 and later model year stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder certify their engines to the emission standards for new marine CI engines, as specified in 40 CFR 94.8. Engines in this displacement range, to the extent they are certified to mobile source standards, are generally certified to nonroad marine CI engine standards, and some to locomotive standards, not to land-based nonroad engine standards. The broadest application for engines in this displacement range is in the marine market, with sales also in the stationary and locomotive market. The engines are also more similar in design to marine engines than to land-based nonroad engines and are operated differently compared to nonroad engines. Additionally, information received from the Engine Manufacturers Association (EMA) indicate that the number of stationary CI ICE with a displacement of greater than 10 liters per cylinder is very small. Only three manufacturers provide engines with such displacement to the stationary market and combined sell about eight such engines for stationary applications in the United States per year, according to EMA. The fraction of new stationary CI ICE of this displacement per year is negligible compared to the total number of new stationary CI ICE sold per year. The EPA, therefore, believes it is appropriate to require manufacturers to certify stationary CI ICE with a displacement between 10 and 30 liters per cylinder to the marine certification standards.

3. Owners and Operators

a. Stationary CI ICE With a Displacement <30 Liters per Cylinder. Owners and operators that purchase 2007 model year and later engines with a displacement of less than 30 liters per cylinder that are not emergency fire pump engines must purchase stationary CI engines that have been certified to the emission standards in 40 CFR part 89, 40 CFR part 94, and 40 CFR part 1039, as applicable, for all pollutants. Owners and operators that purchase pre-2007 model year engines with a displacement of less than 10 liters per cylinder must purchase stationary CI engines that meet the emission standards in table 2 of this preamble. These standards are based on the Tier 1

limits for nonroad CI engines, and they are representative of the current emission levels for many stationary CI ICE. Owners and operators of pre-2007 model year engines with a displacement of greater than or equal to 10 and less than 30 liters per cylinder must meet the emission standards in 40 CFR 94.8(a)(1), which are the Tier 1 emission standards for marine CI engines.

If in-use testing is conducted to demonstrate compliance, the owner and operator of engines with a displacement less than 30 liters per cylinder would be required to meet a less stringent emission standard, an NTE standard, which is 25 to 50 percent higher than the otherwise applicable emission standards. The EPA believes it is appropriate to allow owners and operators to use the NTE standard to help ensure that emissions are controlled over the wide range of speed and load combinations commonly experienced in-use. The EPA has similar NTE standards for nonroad diesel engines, highway heavy-duty diesel engines, CI marine engines, and nonroad SI engines.

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 install controls on their engines that will reduce NO_X emissions by at least 90 percent or limit the emissions of NO_X to 0.40 grams per KW-hour (0.30 grams per HP-hour). Emissions of PM must be reduced by at least 60 percent, or alternatively limited to 0.12 grams per KW-hour (0.09 grams per HP-hr). Engines of such displacement are much larger than nonroad engines and are not currently produced by United States engine manufacturers. In addition, these large engines tend to operate several thousands of hours per year and at constant speed and load as opposed to nonroad engines that normally operate for a few hundred hours per year and often at transient conditions. These large engines are not produced in mass quantities, and if any, only a few may be installed in the United States per year. For these reasons, EPA feels it is more appropriate to regulate the owners and operators of these engines and is not requiring manufacturers to certify these engines. The emission reduction requirement of 90 percent or more for NO_X is based on the reduction capabilities of SCR. As previously mentioned, SCR can reduce NO_X emissions by more than 90 percent from stationary CI engines. The NO_X limit of 0.40 grams per KW-hr is based on the NO_X limits set by both the World Bank and the United Kingdom for large diesel engines. Capital and operating and maintenance costs associated with SCR are as noted high, however, EPA feels the high cost of SCR is justified when installed and operated with engines of significantly higher size and cost than nonroad and other stationary engines. A facility with such large engines will generally have the resources to implement and justify expensive add-on controls. Furthermore, power plant facilities typically have permit conditions that require significant emissions reductions. The requirement of 60 percent PM control or more is based on the capabilities of ESP. Information EPA has received from European manufacturers show that 60 to 70 percent PM reduction is possible with ESP control. The PM emission standard of 0.12 grams per KW-hour is based on information provided by vendors of ESP, who indicated that the technology is capable of achieving that level for oil-fired combustion sources. The EPA believes the emission reduction levels proposed are appropriate for engines of high displacement. The EPA did not set different limits for emergency engines in this size class because there are not expected to be any emergency engines with a displacement above 30 liters per cylinder.

c. Emergency Stationary Fire Pump Engines. Owners and operators of fire pump engines are required to meet the emission standards shown in table 4 of this preamble from July 1, 2006. The EPA is providing additional time for fire pumps to meet these emission standards in order to take account of the increased lead time needed to manufacture and certify fire pump engines to the National Fire Protection Association (NFPA) requirements, as discussed below. The EPA is providing between 2 to 3 years of additional time for emergency fire pumps to reach compliance with the Tier 3 emission standards. As previously noted, Tier 4 standards that are based on add-on controls are not required for emergency engines, which include emergency fire pump engines. The NFPA develops requirements associated with the fire protection industry. More specifically, an NFPA specification known as NFPA 20 contains standards for installation of stationary fire pumps for fire protection. Stationary fire pumps must be certified to NFPA 20 standards in order to be installed in buildings and must go through an extensive process of design and development prior to becoming certified to the NFPA requirements. A period of up to 3 years is often necessary to develop a stationary CI engine into an emergency fire pump engine certified to the necessary NFPA requirements. This period includes time the engine manufacturer, as well as the fire pump manufacturer, needs to develop a product that not only meets EPA's emission standards requirements, but that also meets the requirements of NFPA, if it is to be used for fire suppression purposes and life safety. For these reasons, EPA believes it is appropriate to allow emergency fire pumps an additional 2 to 3 years to demonstrate compliance with the Tier 3 emission standards. Emergency fire pumps would be required to meet Tier 3 emission standards starting between the 2008 and 2011 model year, depending on the size of the engines, as indicated in table 4 of this preamble. High speed fire pump engines (those with a rated speed greater than 2,650 rpm) are allowed an additional 3 years to meet the Tier 3 standards. Manufacturers of stationary fire pump engines indicated that high speed engines are needed for applications where engines must run at high speeds to produce a required water pressure, and that additional time is needed to produce high speed engines that meet the Tier 3 emission levels.

F. What Are the Considerations for Modification and Reconstruction?

Under the General Provisions for modification (40 CFR 60.14) and reconstruction (40 CFR 60.15), facilities that are modified or reconstructed after the date of proposal of a standard are subject to the standard. An owner or operator of an existing CI engine who is planning changes to the engine that could be considered modification or reconstruction shall notify the appropriate EPA Regional Office 60 days prior to making the changes or commencing construction, as applicable.

1. Modification

Upon modification of a stationary CI engine, an existing engine becomes an affected engine and, therefore, subject to the standard. With certain exceptions, any physical or operational change to an existing stationary CI engine that would increase the emission rate from that engine of any pollutant covered by the standard would be considered a modification within the meaning of section 111 of the CAA. If a physical or operational change to an existing stationary engine would increase emissions from the engine, the owner or operator either can take appropriate measures to offset the emission increase within the engine such that there is no

overall net increase in emissions from the engine as a result of the physical or operational change, or allow the engine to be classified as an affected facility under the modification criteria and, therefore, meet the requirements of the NSPS.

Under the General Provisions to part 60, the following physical or operational changes are not considered to be modifications even though emissions may increase as a result of the change (*see* § 60.14(e)):

(a) Routine maintenance, repair, and replacement (e.g., lubrication of mechanical equipment; replacement of pumps, motors, and piping; replacement of engine wear parts, such as rings, seals and valves, to return an engine to its original operating condition; cleaning of equipment);

(b) An increase in engine power without a capital expenditure (as defined in § 60.2);

(c) An increase in the hours of operation;

(d) Use of an alternative fuel or raw material if, prior to proposal of the standard, the existing engine was designed to accommodate that alternative fuel or raw material;

(e) The addition or use of any system or device whose primary function is to reduce air pollutants, except when an emission control system is replaced by a system determined by the EPA to be less environmentally beneficial; and

(f) Relocation or change in ownership of the existing engine.

2. Reconstruction

An existing engine may become subject to NSPS if it is reconstructed. Reconstruction is defined in § 60.15 as the replacement of the components of an existing engine to the extent that: (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost required to construct a comparable new engine; and (2) it is technically and economically feasible for the engine to meet the applicable standards. Because the EPA considers reconstructed engines to constitute new construction rather than modification, reconstruction determinations are made irrespective of changes in emission rates. If the engine is determined to be reconstructed, it must comply with all of the provisions of the standards of performance applicable to that engine.

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.

G. How Did EPA Determine the Compliance Requirements for the Proposed Rule?

Owners and operators of all engines subject to the proposed rule are required to operate and maintain their engine and control device according to the manufacturer's written instructions.

The proposed rule requires that 2007 model year and later stationary CI engines affected by the NSPS be certified to the nonroad, or marine, where applicable, CI engine emission standards. For certified engines, the testing done by the manufacturer will serve to demonstrate compliance with the emission limitations on an initial and ongoing basis until the end of the engine's useful life.

The EPA specified in the proposed rule that the certification testing for emergency fire pump engines can be conducted at the NFPA certified nameplate HP of the engine, provided that the engine manufacturer can certify that the engine will not be used in any application that allows higher HP and provided that the engine is not modified following testing. According to emergency fire pump engine manufacturers, NFPA 20 requires emergency fire pump engines to have 10 percent more power capability than the certified nameplate rating of the engine. This additional power is never used. Therefore, the EPA feels it is appropriate to allow emergency fire pump engines to be tested at the nameplate power instead of the maximum engine power. Manufacturers of emergency fire pump engines are also allowed to use an optional 3-mode test cycle for the certification testing. Emergency fire pump engines do not idle and are never operated without load. The modes in this test cycle are sufficiently representative of the operation of emergency fire pump engines,

For a pre-2007 model year engine having a displacement less than 30 liters per cylinder, the owner or operator has various options for demonstrating compliance with the emission limitations. These options will provide flexibility to the engine owner or operator and provide assurance of compliance at a reasonable cost to the owner or operator.

For owners and operators of stationary CI ICE that have CDPF, a backpressure monitor is required to be installed. This monitor will notify the owner or operator if the high backpressure limit of the engine is approached. The backpressure is an indicator of CDPF performance and can alert the owner or operator when it is time to clean or perform maintenance on the particulate filter. According to CDPF vendors, a backpressure monitor is typically included with the CDPF control device. The owner and operator is required to maintain records of any corrective action that is taken when the monitor is activated indicating a high backpressure. The owner and operator is not required to report each occurrence to the EPA, but must maintain records of corrective action taken, as indicated, and made available to the enforcing agency upon request.

All owners and operators must keep records of any notifications, maintenance conducted on the engine, and compliance materials used to indicate that the engine meets the appropriate emission standards. The EPA is also requiring that emergency engines install a non-resettable hour meter. The owner or operator of the engine is required to keep records that document the number of hours the engine is operated for non-emergency purposes, but is not required to keep records relating to the number of hours operated during emergencies. Requiring documentation of the number of hours spent in non-emergency service ensures that records are available to the enforcing agency to verify that the emergency engine's operation during testing and maintenance is limited to 30 hours per year, which is required by the proposed rule. The EPA does not feel it is necessary for owners and operators to maintain records of operation during emergencies, as operation during true emergencies is not limited by the proposed rule. The EPA believes that most stationary CI ICE come equipped with an hour meter, and expects there to be minimal costs associated with this requirement.

Owners and operators of stationary CI ICE with a displacement greater than or equal to 30 liters per cylinder are required to demonstrate compliance by first conducting an initial performance test to demonstrate that the emissions reductions requirements are met. Then, owners and operators of these engines must establish parameters to be monitored on a continuous basis. Finally, owners and operators of engines with a displacement at or above 30 liters per cylinder must conduct annual performance tests to demonstrate that the reduction requirements for NO_X and PM are being met. As previously discussed in this preamble, engines of this displacement are not certified products and the compliance requirements would necessarily fall on the owner and operator of the engine.

The EPA believes it is appropriate to require initial, followed by subsequent annual performance testing to demonstrate compliance with the proposed rule. Conducting a performance test is the best way to ensure that the emission standards are being met. Monitoring parameters on a continuous basis will ensure that the engine meets the standards at all times.

H. How Did EPA Select the Methods for Performance Testing?

The proposed NSPS for stationary CI ICE do not require the owners or operators to conduct performance tests unless the engine has a displacement greater than or equal to 30 liters per cylinder. The EPA expects that the majority of engines covered by the proposed NSPS will be certified to the nonroad or marine CI engine emission standards. The engine manufacturers guarantee that these engines will meet the certified emission levels throughout the useful life of the engine. The EPA, therefore, does not feel it is necessary to require any performance testing. Certain stationary engines will not be certified to the nonroad CI standards. For these engines with a displacement less than 30 liters per cylinder, EPA is allowing various options for demonstrating compliance as previously described. For such engines that choose to perform an initial performance test, the performance test must be conducted according to the requirements specified in the proposed NSPS. These testing requirements are based on the established program for testing nonroad CI engines. The enforcing agency may at any time at its discretion require that an engine be tested. If so, the performance test must be conducted in accordance with the requirements EPA has specified in the proposed rule. The EPA believes it is appropriate to allow owners and operators of non-certified engines with a displacement less than 30 liters per cylinder to use performance test results for a test conducted on a similar engine or information from the engine manufacturer or control device vendor to demonstrate compliance with the emission standards. The allowance applies only to owners and operators of pre-2007 model year stationary CI ICE. Starting in the 2007 model year, owners and operators are required to purchase certified engines. The allowance would, therefore, only affect a limited number of engines for a short interim period until certified engines are required. Furthermore, allowing owners and operators of pre-2007 model year engines to use the information discussed to demonstrate compliance minimizes the cost burden that would otherwise be associated with each owner and operator conducting a performance test to demonstrate compliance. For these reasons, EPA believes the allowance is appropriate.

For stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, EPA is requiring that owners and operators conduct performance testing. The performance tests will ensure that the required percent reductions of NO_X and PM are achieved. The EPA is requiring that the concentration of NO_X be measured using Method 7E of 40 CFR part 60, appendix A. Method 5 of 40 CFR part 60, appendix A, must be used to measure the concentration of PM. If the percent reduction option is used, the concentration measurements of NO_X and PM must be taken at the inlet and outlet of the control device in order to calculate the emission reduction. The proposed rule also requires that owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder use Method 1 or 1A for the selection of sampling ports and traverse points, Method 3, 3A, or 3B for determining the oxygen or carbon dioxide concentration, Method 4 for determining the moisture content (if necessary), and Method 19 for emission rates. The EPA feels it is appropriate to require owners and operators to use the test methods mentioned above when demonstrating compliance with the emission reduction requirements of the proposed rule.

I. How Were the Reporting and Recordkeeping Requirements Selected?

The proposed notification, reporting, and recordkeeping requirements are based in part on the General Provisions of 40 CFR part 60 and represent a reasonable level of reporting and recordkeeping.

Owners and operators of non-emergency stationary CI ICE that are greater than 3,000 HP, greater than or equal to 10 liters per cylinder displacement, or pre-2007 model year engines greater than 175 HP and not certified, are required to submit an initial notification. The initial notification must contain the information described in the proposed rule and includes information related to the owner and operator, the engine and control device, and fuel used. If the engine is certified, the owner and operator must keep records from the manufacturer indicating that the engine is certified to meet the applicable standards. All owners and operators are also required to keep records of all notifications submitted to comply with the proposed rule, any maintenance conducted on the engine, records of any performance tests conducted used to demonstrate compliance with the emission standards, engine manufacturer or control device vendor information, operating parameter data that is used to demonstrate continuing compliance, and any other information used to demonstrate compliance.

The proposed rule relies primarily on engine certification to achieve emission reductions from stationary CI ICE. Certified stationary CI engine families must go through rigorous testing and approval procedures and are warranted by the engine manufacturer to continue to achieve the certified engine emission levels for the useful life of the engine. Starting with 2007 model year engines, owners and operators will not be able to purchase a stationary CI engine that is not certified, except for the very largest engine families that have engines with a displacement of 30 liters per cylinder or more, which have conventional emission limitations and are not certified. As a result, initial notification by the owners and operators will not be required for all but the largest certified engines (engines larger than 2,237 KW (3,000 HP) or with a displacement above 10 liters per cylinder) since certified engines have been shown to be able to achieve the intended emission limitations and are warranted by the engine manufacturer for its useful life. However, EPA is requesting comment on whether to require initial notification for smaller engines that are still large enough to be of substantial importance to local air quality management and not so small and numerous that a notification requirement would be a substantial burden on owners and operators, particularly private owners and small entities. If a commenter believes such notification is appropriate for smaller engines, we ask the commenter to address the size at which such notification would be appropriate.

In the transition period, the period between rule proposal and 2007 model year engines, it is expected that owners and operators of as many as 90 percent of the new stationary CI ICE purchased will be able to demonstrate that the engine is in an engine family that is certified for nonroad CI engine purposes. As a result, and for the same reasons as previously discussed for all but the largest certified stationary CI engines, an initial notification is not required. For those stationary CI engine families where there are no certified nonroad CI engines available, an initial notification is required for those stationary CI engines that are relatively large and those engines enforcing

agencies may want to keep track of individually.

In the transition period, we are proposing that all new stationary CI engine families above 175 HP, which are not certified for CI nonroad engine use, provide an initial notification. Since we are not proposing to require certification for stationary engine families with a displacement of 30 liters per cylinder or more, these new engines will have to provide an initial notification.

Owners and operators of stationary CI ICE that have CDPF are required to keep records of any corrective action taken after the backpressure monitor has activated and notified the owner or operator that the backpressure limit has been reached.

Owners and operators of emergency engines are not required to submit an initial notification, but must keep records of the number of hours spent during non-emergencies through the use of a non-resettable hour meter. The EPA believes that maintaining records of these hours is a reasonable requirement and ensures compliance with the 30 hours per year limit for operation during maintenance and testing.

V. Summary of Environmental, Energy and Economic Impacts

A. What Are the Air Quality Impacts?

The proposed rule will reduce NO_X emissions from stationary CI ICE by an estimated 38,000 tpy, PM emissions by about 3,000 tpy, NMHC emissions by about 600 tpy, SO_2 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. The EPA estimates that approximately 81,500 stationary CI ICE will be affected by the proposed rule in the year 2015. Of these, the EPA estimates that 20 percent are used in non-emergency applications. The EPA does not expect there to be any stationary CI ICE with a displacement of 30 liters per cylinder or more, and, therefore, no emissions or emissions reductions have been estimated. A secondary impact of the proposed rule is the reduction of HAP that will result from the use of CDPF. The EPA estimates that emissions of HAP will be reduced by approximately 93 tons in the year 2015.

B. What Are the Cost Impacts?

The total costs of the proposed rule are mostly based on the cost associated with purchasing and installing NO_X 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_X adsorber and CDPF were based on information developed for the nonroad rule for diesel engines. The EPA does not expect that any 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 proposed rule can be found in a memorandum included in the docket (Docket ID. No. OAR–2005–0029).

The total national capital cost for the proposed 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 model year for which all stationary CI ICE would have to meet the final Tier 4 emission standards.

C. What Are the Economic Impacts?

The proposed rule affects new sources of nonroad 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 the Agency last year, that estimates changes in prices and output for affected sources using the annual compliance costs estimated for the proposed 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 dollars) 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 proposed rule.

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

D. What Are the Non-Air Health, Environmental and Energy Impacts?

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

VI. Solicitation of Comments and Public Participation

The EPA seeks full public participation in arriving at its final decisions, and strongly encourages comments on all aspects of the proposed rule from all interested parties. Whenever applicable, full supporting data and detailed analysis should be submitted to allow the EPA to make maximum use of the comments. The Agency invites all parties to coordinate their data collection activities with the EPA to facilitate mutually beneficial and cost-effective data submissions.

Specifically, we request comments on whether we should apply the generator standards for NO_X for non-emergency stationary ICE greater than 750 HP. The proposed standards for non-generators are not based on the use of add-on control and are less stringent than the proposed standards for generator sets. We believe there may be technologies available to allow us to set more stringent standards for non-generators and request public comment on this issue.

We are also requesting comment on the appropriateness of including the exemption provisions of 40 CFR 1068.240, which relate to replacement engines. We do not necessarily believe that an exemption for replacement engines is entirely needed and expect that such an exemption would be more appropriate for nonroad engines. Although we do not anticipate that stationary engines will require this exemption, we are asking the public for comment on this issue. We also ask comment on whether the other exemption provisions of that subpart are appropriate for stationary engines.

We are requesting comment on whether owners and operators of stationary ICE with a displacement of 30 liters per cylinder or more should be required to use ULSD fuel. As indicated earlier in this preamble, we believe that these stationary CI ICE should be able to use ULSD fuel, however, we are asking for public comment on this issue.

We are also requesting comment on the agency's conclusion that the best demonstrated technology for the sources regulated under the proposed rule includes an ABT program with emissions limitations that reflect EPA's understanding of technology. We also invite comments from interested parties on our decision that the limitations should be applied at the manufacturer level to various product lines.

Finally, we request public comment on the proposed emission standards for stationary CI ICE with a displacement of 30 liters per cylinder or greater. We are requesting any PM emissions test data available from stationary CI ICE that are using ESP to reduce emissions. If you submit PM emissions tests data, please submit the full and complete emission test report with these data. The information submitted to EPA should include sections describing the stationary CI engine and its operation during the test as well as identifying the stationary CI engine for purposes of verification, description of the emission control device, fuel used, discussion of the test methods employed and the quality assurance/quality control procedures followed, the raw data sheets, all the calculations, etc.

VII. 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 proposed 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 proposed 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.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this rule, which includes this ICR, under Docket ID number OAR–2005–0029. Submit any comments related to the ICR for this proposed rule to EPA and OMB. See **ADDRESSES** section at the beginning of this notice for where to submit comments to EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention: Desk Office for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after July 11, 2005, a comment to OMB is best assured of having its full effect if OMB receives it by August 10, 2005. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

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 proposed 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 today's proposal on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by the proposed rule are businesses within the NAICS codes mentioned above. There are 104 ultimate parent businesses that will be affected by the proposal. 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 proposed rule, and one of these four will have an compliance cost of more than 3 percent of sales. For more information on the small entity impacts, please refer to the economic impact and small business analyses in the rulemaking docket.

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

The EPA is including the same provisions for small manufacturers and small refiners that the nonroad CI engine rule does. The 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. The 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 proposed rule that is achievable for this segment.

Following the publication of the promulgated rule, copies of the **Federal Register** notice and, in some cases, background documents are mailed to all industries and organizations who have had input during the regulation development and to relevant State and local agencies. Trade Associations distributed copies of the **Federal Register** action to their members. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act 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 the 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.

The EPA has determined that today's proposed 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, today's proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the proposed 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 proposed 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 proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The proposed 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 proposed rule. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on the proposed rule from State and local officials.

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.'' ''Policies that have tribal implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.''

The proposed 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 proposed 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.

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 proposed 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 proposed 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 proposed rule. The estimated increase in demand for ultra-low sulfur diesel fuel (ULSD) in 2015 (the year for which the impacts of the proposed rule are estimated) associated with the proposed 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 proposed 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 proposed 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 the 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 the OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The proposed rule involves technical standards. The 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 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 nonpetroleum diesel fuel. The procedures in 40 CFR part 1065 also allow any CARB or International Organization for Standardization (ISO) standard if shown to be equivalent. Other test methods cited in the proposed rule are EPA Methods 1, 1A, 3, 3A, 3B, 4, 5, and 7E of 40 CFR part 60, appendix A.

Consistent with the NTTAA, the 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 as written, but may be acceptable if minor adjustments are made to the procedures. The EPA invites comments on the use of this ISO standard for today's proposed rule.

The voluntary consensus standard ISO 8178–1:1996, ''Reciprocating ICE—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 proposed rule (specifically 40 CFR 86.1310) for the following reasons. Although ISO 8178–1:1996 has many of the features of the EPA test procedures, the ISO standard allows the gaseous measurements to be made in an undiluted sample whereas the 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 particulate matter, 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 the 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 proposed rule lists the testing methods included in the regulation. Under §§ 60.8 and 60.13 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.

List of Subjects

40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Nitrogen oxides, Particulate matter, Reporting and recordkeeping requirements.

40 CFR Part 85

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

40 CFR Part 89

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

40 CFR Part 94

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

40 CFR Part 1039

Environmental protection, Administrative practice and procedure, Air pollution control.

40 CFR Part 1065

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

40 CFR Part 1068

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

Dated: June 29, 2005.

Stephen L. Johnson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 60, of the Code of Federal Regulations is proposed to be 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.*

2. Part 60 is amended by adding subpart IIII to read as follows:

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Sec.

What This Subpart Covers

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?

Other Requirements for Owners and Operators

60.4208 What is the deadline for purchasing 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?

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

Definitions

60.4216 What definitions apply to this subpart?

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.

Table 2 to Subpart IIII of Part 60.—Emission Standards for Stationary Fire Pump Engines

Table 3 to Subpart IIII of Part 60.—Labeling Requirements for New Stationary Emergency Engines

Table 4 to Subpart IIII of Part 60.—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

Table 5 to Subpart IIII of Part 60.—Requirements for Performance Tests for Stationary CI ICE with a displacement of ≥30 liters per cylinder

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

The provisions of this subpart are applicable to all owners or operators of stationary compression ignition (CI) internal combustion engines (ICE) that commence construction, modification or reconstruction after July 11, 2005 and to manufacturers of 2007 and later model year CI ICE. For the purposes of this subpart, the date of construction is the date the engine is ordered by the owner or operator, except that (a) stationary CI ICE that are not fire pump engines and are manufactured prior to April 1, 2006 shall not be considered constructed after

July 11, 2005; and (b) stationary CI ICE that are fire pump engines and are manufactured prior to July 1, 2006 shall not be considered constructed after July 11, 2005.

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 of 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 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, the first line of table 1 of 40 CFR 1039.101 for all pollutants for engines with a maximum engine power less than 19 KW (25 HP) beginning in the 2015 model year, the second line of table 1 of 40 CFR 1039.101 for NO_X + NMHC and CO for engines with a maximum engine power greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) beginning in the 2015 model year, table 1 of 40 CFR 1039.102 for all pollutants for engines with a maximum engine power less than 19 KW (25 HP) from model years 2008 to 2014, the first line of table 2 of 40 CFR 1039.102 for all pollutants for engines with a maximum engine power greater than or equal to 19 KW (25 HP) and less than 37 KW (50 HP) from model years 2008 to 2014 (2008 and all later model years for PM), and the first line of table 3 of 40 CFR 1039.102 for all pollutants for engines with a maximum engine power greater than or equal to 37 KW (50 HP) and less than 56 KW (75 HP) from model years 2012 to 2014 (2008 and all later model years for PM).

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year 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 in table 1 of 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 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 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 beginning in model year 2011.

(d) 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.

(e) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later fire pump stationary CI ICE to the emission standards in table 2 of this subpart, for all pollutants, for the same model year and maximum engine 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 that purchase 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 of this subpart. Owners and operators that purchase 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 that purchase 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_X) emissions by 90 percent or more, or limit the emissions of NO_X in the stationary CI internal combustion

engine exhaust to 0.40 grams per KW-hour (0.30 grams per HP-hour).

(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 0.12 grams per KW-hour (0.09 grams per HP-hour).

§ 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 that purchase 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 of this subpart. Owners and operators that purchase 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 that purchase 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 that purchase fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 2 of 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 nitrogen oxides (NO_X) emissions by 90 percent or more, or limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to 0.40 grams per KW-hour (0.30 grams per HP-hour).

(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 0.12 grams per KW-hour (0.09 grams per HP-hour).

§ 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 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?

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

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for purchasing stationary CI ICE produced in the previous model year?

(a) Owners and operators may not install pre-2007 model year stationary CI ICE after June 30, 2007.

(b) Owners and operators may not install pre-2008 model year stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) after June 30, 2008.

(c) Owners and operators may not install pre-2013 model year 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) after June 30, 2013.

(d) Owners and operators may not install pre-2012 model year 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) after June 30, 2012.

(e) Owners and operators may not install pre-2011 model year non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP) after June 30, 2011, including those above 560 KW (750 HP).

(f) Owners and operators may not install pre-2015 model year non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) after June 30, 2015.

(g) The requirements of this section do not apply to owners and operators of stationary CI ICE that have been modified or reconstructed.

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

(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) through (c) and (e) 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.

(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(d) 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 also meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, or 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. Stationary CI internal combustion engine manufacturers must also meet the requirements of 40 CFR part 1068. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate.

(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 3 of this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for 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).

(g) Manufacturers of fire pump engines may use the test cycle in table 4 of this subpart for testing fire pump engines. Fire pump engines may test at the National Fire Protection Association (NFPA) certified nameplate HP, provided that the engine manufacturer can certify that the engine will not be used in any application that allows higher HP and provided that the engine is not modified following testing.

§ 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. You must also meet the requirements of 40 CFR part 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), 60.4205(a), or (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 (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 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_X 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_X 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, 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 the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 30 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations.

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).

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

89.112, determined from the following equation:

NTE requirement for each pollutant = (1.25) × (STD) (Eq. 1)

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112.

(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 (c).

§ 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 5.

(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:

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

Where:

C_i = concentration of NO_X or PM at the control device inlet,

C_o = concentration of NO_X or PM at the control device outlet, and

R = percent reduction of NO_X or PM emissions.

(2) You must normalize the NO_X or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \%O_2} \qquad \text{(Eq. 3)}$$

Where:

C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O_2.

C_d = Measured concentration of NO_X or PM, uncorrected.

5.9 = 20.9 percent O_2 − 15 percent O_2, the defined O_2 correction value, percent.

$\%O_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

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

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

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

F_c = Ratio of the volume of CO2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 − 15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_X and PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%\,CO_2} \qquad \text{(Eq. 6)}$$

Where:

C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O_2.

C_d = Measured concentration of NO_X or PM, uncorrected.

$\%CO_2$ = Measured CO_2 concentration, dry basis, percent.

(e) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 7 of this section:

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

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated NO_X concentration in ppm adjusted to 15 percent O_2.

$1.912x10^{-3}$ = conversion constand for ppm NO_X to 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 = 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:

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

Where:

ER = Emission rate in grams per KW-hour.

C_{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. The owner or operator must keep records of the operation of the engine in non-emergency service that is recorded through the non-resettable hour meter.

(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.

Definitions

§ 60.4216 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. 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 is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

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 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, 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.

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:

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_X	HC	NO_X	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 Stationary Fire Pump Engines

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

Engine power	Model year(s)	Emission standards for stationary fire pump engines in g/KW-hr (g/HP-hr)		
		NMHC + NO_X	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+ [1]	4.7 (3.5)	.....	0.30 (0.22)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ [1]	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+ [2]	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+ [3]	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+ [3]	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)

Engine power	Model year(s)	Emission standards for stationary fire pump engines in g/KW-hr (g/HP-hr)		
		NMHC + NO_X	CO	PM
	2008+	6.4 (4.8)		0.20 (0.15)

[1] In model years 2011–2013, manufacturers of fire pump stationary CI ICE with a rated speed of greater than 2,650 revolutions per minute (rpm) may certify fire pump stationary CI ICE with a rated speed of greater than 2,650 rpm to the emission limitations for 2010 model year engines.

[2] In model years 2010–2012, manufacturers of fire pump stationary CI ICE with a rated speed of greater than 2,650 rpm may certify fire pump stationary CI ICE with a rated speed of greater than 2,650 rpm to the emission limitations for 2009 model year engines.

[3] In model years 2009–2011, manufacturers of fire pump stationary CI ICE with a rated speed of greater than 2,650 rpm may certify 2009–2011 model year fire pump stationary CI ICE with a rated speed of greater than 2,650 rpm to the emission limitations for 2008 model year engines.

Table 3 to Subpart IIII of Part 60.—Labeling Requirements for New Stationary Emergency Engines

As stated in § 60.4210(f), you must comply with the following labeling requirements for new emergency stationary CI ICE:

Starting power	Starting model year engine manufacturers must label new stationary emergency engines according to § 60.4210(f)
19≤KW<56, (25≤HP<75)	2013
56≤KW<130, (75≤HP<175)	2012
KW≥130, (HP≥175)	2011

Table 4 to Subpart IIII 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 [1]	Torque (percent) [2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1] Engine speed: ±2 percent of point.

[2] Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 5 to Subpart IIII 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_X emissions by 90 percent of more.	1. 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.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurements for NO_X concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurements for NO_X concentration.
		iv. Measure NO_X at the inlet and outlet of the control device.	(4) Method 7E of 40 CFR part 60, appendix A.	(d) NO_X concentration must be at 15 percent O_2 dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each	Complying with the requirement to	You must	Using	According to the following requirements
	b. Limit the concentration of NO_X in the stationary CI internal combustion engine exhaust.	i. Select the sampling port locations and the number of traverse points;	(1) Method 1 of 1A of 40 CFR part 60, appendix A.	(a) if using control device, the sampling site must be located at the T the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, Appendix A.	(b) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurement for NO_X concentration.
		iii. If necessary measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurement for NO_X concentration.
		iv. Measure NO_X at the exhaust of the stationary internal combustion engine.	(4) Method 7E of 40 CFR part 60, appendix A.	(d) NO_X concentration must be at 15 percent O_2 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.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurements for PM concentration.
		iii. If necessary measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A.	(d) PM concentration must be at 15 percent O_2 dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust.	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) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurements for PM concentration.
		iii. If necessary measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A.	(c) Measurements to determine O_2 concentration and moisture must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A.	(d) PM concentration must be at 15 percent O_2 dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

PART 85—[AMENDED]

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

Authority: 42 U.S.C. 7401–7671q.

4. 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).

5. 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.

6. 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]

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

Authority: 42 U.S.C. 7401–7671q.

8. Section 89.1 is amended by adding paragraph (c) to read as follows:

§ 89.1 Applicability.

* * * * *

(c) 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.

9. 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.

10. 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. As 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]

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

Authority: 42 U.S.C. 7401–7671q.

12. 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.

13. 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. As 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]

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

Authority: 42 U.S.C. 7401–7671q.

15. 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.

* * * * *

16. Section 1039.20 is amended by revising paragraphs (a) 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 60, subpart IIII, to meet the requirements of this part 1039. 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.

* * * * *

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

17. 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.

* * * * *

18. 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]

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

Authority: 42 U.S.C. 7401–7671q.

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

§ 1065.1 Applicability

(a) * * *

(5) Stationary compression-ignitions 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]

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

Authority: 42 U.S.C. 7401–7671q.

22. 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-ignitions engines certified under 40 CFR part 60, subpart IIII.

* * * * *

23. 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 subject to the standards of 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.

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