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40 CFR Parts 60, 63, et al.

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60, 63, 85, 90, 1048, 1065, and 1068

[EPA–HQ–OAR–2005–0030, FRL–8176–1]

RIN 2060–AM81 and 2060–AN62

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing new source standards of performance for stationary spark ignition internal combustion engines. EPA is also proposing national emission standards for hazardous air pollutants for stationary reciprocating internal combustion engines that either are located at area sources of hazardous air pollutant emissions or that have a site rating of less than or equal to 500 brake horsepower and are located at major sources of hazardous air pollutant emissions.

DATES: Comments must be received on or before September 11, 2006, or 60 days after date of public hearing if later. Under the Paperwork Reduction Act, comments on the information collection provisions must be received by the Office of Management and Budget (OMB) on or before July 12, 2006. *Public Hearing.* If anyone contacts us requesting to speak at a public hearing by July 3, 2006, a public hearing will be held on July 12, 2006. If you are interested in attending the public hearing, contact Ms. Pamela Garrett at (919) 541–7966 to verify that a hearing will be held.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2005–0030, by one of the following methods:

- *www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-docket@epa.gov.*
- *Fax:* (202) 566–1741.
- *Mail:* Air and Radiation Docket and Information Center, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of two copies. 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, Attn: Desk Officer for EPA, 735 17th St., NW., Washington, DC 20503.
- Hand Delivery: Air and Radiation Docket and Information Center, U.S. EPA, Room B102, 1301 Constitution Avenue, NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2005–0030. EPA's policy is that all comments received will be included in the public docket without change and may be made available on-line at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or e-mail. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *www.regulations.gov*, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

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 an alternate site nearby.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. We also rely on documents in Docket ID Nos. A–96–55 and A–2000–01, and incorporate those dockets into the record for this proposed rule. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the Air and Radiation 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 Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Jaime Pagán, Energy Strategies Group, Sector Policies and Programs Division (D243–01), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number (919) 541–5340; facsimile number (919) 541–5450; email address ''*pagan.jaime@epa.gov*.''

SUPPLEMENTARY INFORMATION:

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

I. General Information

A. Does this action apply to me?

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

Category	NAICS [1]	Examples of regulated entities
Any manufacturer that produces or any industry using a stationary internal combustion engine as defined in this proposed rule.	2211	Electric power generation, transmission, or distribution.
	622110	Medical and surgical hospitals.
	335312	Motor and generator manufacturing.
	333912	Pump and compressor manufacturing.
	333992	Welding and soldering equipment manufacturing.
	48621	Natural gas transmission.
	211111	Crude petroleum and natural gas production.
	211112	Natural gas liquids producers.
	92811	National security.

[1] 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 of this 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 regulations.gov or e-mail. 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 diskor 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. Send or deliver information identified as CBI to only the following address: Mr. Jaime Pagán, c/o OAQPS Document Control Officer (Room C404–02), U.S. EPA, Research Triangle Park, NC 27711, Attention Docket ID No. EPA–HQ–OAR–2005–0030.

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. 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 this proposed rule is Docket ID No. EPA–HQ–OAR–2005–0030.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of this proposed rule will be posted on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, EPA will post a copy of this 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 spark ignition (SI) internal combustion engines (ICE). New source performance standards implement section 111(b) of the Clean Air Act (CAA), and are issued for categories of sources which cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. The standards apply to new stationary sources of emissions, i.e., sources whose construction, reconstruction, or modification begins after a standard for those sources is proposed. The NSPS for stationary SI ICE would be promulgated under 40 CFR part 60, subpart JJJJ.

This action also proposes national emission standards for hazardous air pollutants (NESHAP) from existing, new, and reconstructed stationary reciprocating internal combustion engines (RICE) with a site rating of less than or equal to 500 horsepower (HP) located at major sources, and existing, new, and reconstructed stationary RICE located at area sources. We are proposing these requirements to meet our statutory obligation to address hazardous air pollutants (HAP) emissions from these sources under sections 112(d) and 112(k) of the CAA. The final NESHAP for stationary RICE would be promulgated under 40 CFR part 63, subpart ZZZZ, which already contains standards applicable to stationary RICE with a site rating above 500 HP located at major sources.

We are proposing these two sets of regulations under one notice of proposed rulemaking because the source categories being addressed are practically identical. In other words, stationary engines located at major and area sources of HAP will also be affected by NSPS regulations. Based on the similarities, we decided that it would be appropriate to propose the regulations at the same time and attempt to bring some consistency between them.

III. Summary of this Proposed Rule

A. What is the source category regulated by this proposed rule?

The proposed NSPS apply to new stationary SI 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. The proposed NESHAP applies only to stationary RICE. To our knowledge, no rotary or other types of stationary ICE exist at this time.

The SI NSPS address emissions from new, modified and reconstructed stationary SI engines. An SI engine is either a gasoline-fueled engine; or any other type of engine, with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression ignition 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 considered SI engines for purposes of this proposed rule.

The NESHAP address emissions from existing, new, and reconstructed stationary engines less than or equal to 500 HP located at major sources and all stationary engines located at area sources. A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site. An area source of HAP emissions is a source that is not a major source.

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

1. SI NSPS

New source performance standards for stationary SI engines are issued under section 111(b) of the CAA. All new, modified and reconstructed stationary SI engines are covered regardless of size. The NSPS apply to stationary SI engines combusting any fuel (natural gas, gasoline, liquefied petroleum gas (LPG), compressed natural gas, landfill gas, digester gas, and any other applicable fuel). New source performance standards require these sources to control emissions to the level achievable by best demonstrated technology (BDT), considering costs and any non-air quality health and environmental impacts and energy requirements.

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 judgment 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.

EPA has determined that for purposes of NSPS regulations, the stationary internal combustion engine source category should be split into two source categories—SI engines and compression ignition (CI) engines. Proposed NSPS for stationary CI engines were published on July 11, 2005 (70 FR 39870).

2. NESHAP

The NESHAP portion of this action is a revision to the regulations in 40 CFR part 63, subpart ZZZZ, currently applicable to stationary RICE greater than 500 HP located at major sources, which were promulgated in 2004. Subpart ZZZZ of 40 CFR part 63 does not currently cover stationary engines located at area sources of HAP emissions, nor does it apply to stationary engines located at major sources with a site rating of 500 HP or less. When the subpart ZZZZ of 40 CFR part 63 regulations were promulgated in 2004 (69 FR 33474), EPA deferred promulgating regulations with respect to stationary engines 500 HP or less at major sources until further information on the engines could be obtained and analyzed. It was decided to regulate these smaller engines at the same time as we regulate engines located at area sources.

This action proposes to revise 40 CFR part 63, subpart ZZZZ, in order to address HAP emissions from stationary RICE less than or equal to 500 HP located at major sources and stationary RICE located at area sources. For stationary engines less than or equal to 500 HP at major sources, EPA must determine what is the appropriate maximum achievable control technology (MACT) for those engines under section 112(d)(3) of the CAA.

For stationary engines located at area sources, we have the flexibility to promulgate standards based on generally available control technology (GACT) under CAA section 112(d)(5). We are required to address HAP emissions from stationary RICE located at area sources under section 112(k) of the CAA, based on criteria set forth by EPA in the Urban Air Toxics Strategy described in the paragraph below.

On July 19, 1999, EPA announced in the **Federal Register** its plan for addressing exposure to air toxics in urban areas. The Urban Air Toxics Strategy (64 FR 38706) listed several source categories that emit one or more of the air toxic pollutants of greatest concern in urban areas. The stationary engine source category was one of the source categories listed and, as such, EPA is required to consider it for regulation. The strategy addressed sections 112(c)(3) and 112(k)(3)(B)(ii) of the CAA that instruct us to identify not less than 30 HAP which, as the result of emissions from area sources, present the greatest threat to public health in the largest number of urban areas, and to list sufficient area source categories or subcategories to ensure that emissions representing 90 percent of the 30 listed HAP are subject to regulation. The strategy included a list of 33 HAP judged to pose the greatest potential threat to public health in the largest number of urban areas (the urban HAP) and a list of area source categories emitting the listed HAP (area source HAP). Once listed, these area source categories shall be subject to standards under section 112(d) of the CAA.

We have divided the source category into the following subcategories: Stationary RICE less than 50 HP, landfill and digester gas stationary RICE, CI stationary RICE greater than or equal to 50 HP, and SI stationary RICE greater than or equal to 50 HP. The CI stationary RICE greater than or equal to 50 HP subcategory was further subcategorized into emergency and non-emergency engines, as was the

subcategory of SI stationary RICE greater than or equal to 50 HP. Spark ignition non-emergency stationary RICE greater than or equal to 50 HP were then subcategorized into 2 stroke lean burn (2SLB), 4 stroke lean burn (4SLB), and 4 stroke rich burn (4SRB) stationary RICE.

The regulatory approach being proposed in this action differentiates between gasoline, LPG, natural gas, and digester and landfill gas. Gasoline and LPG are fuels more commonly used in nonroad engines than stationary engines. Nonroad SI engines less than or equal to 19 kilowatt (KW) (25 HP) typically use gasoline. It is estimated that about 68 percent of SI nonroad engines above 19 KW (25 HP) use LPG. A smaller percentage of nonroad SI engines above 19 KW (25 HP) use gasoline (about 23 percent) and even less use compressed natural gas (about 9 percent). Natural gas fuel is more common in larger, stationary applications. Natural gas engines refer to all gaseous-fueled engines except those fueled by landfill and digester gas. Natural gas is primarily composed of methane and typically contains very low levels of sulfur. Other fuels used with stationary SI engines are landfill and digester gases. These gases are by-products of wastewater treatment and land application of municipal reuse. Landfill and digester gases, which are formed through anaerobic decomposition of organic materials, are principally comprised of methane and carbon dioxide, but small quantities of other compounds such as hydrogen sulfide, ammonia, volatile organic compounds, and particulate matter (PM) may also be present. These gases have a lower methane content than natural gas and may range from 50 to 65 percent. Although similar in composition to natural gas, there are some differences in the emissions from combustion of landfill and digester gases due to e.g., chlorinated compounds typically not found in natural gas. Both landfill and digester gases contain a family of silicon-based gases collectively called siloxanes. Combustion of siloxanes forms compounds that have been known to foul fuel systems, combustion chambers, and post-combustion catalysts.

B. What are the pollutants regulated by this proposed rule?

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 of the CAA, while HAP are regulated under section 112 of the CAA. Emissions from stationary engines contribute significantly to air pollution and cause adverse health and welfare effects. The pollutants to be regulated by the proposed NSPS for stationary SI engines are nitrogen oxides (NO_X), carbon monoxide (CO), and non-methane hydrocarbons (NMHC). In addition, a sulfur limit on gasoline is being proposed.

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 also a major precursor for nitrate PM. Particulate matter, also regulated as a criteria pollutant, is associated with premature mortality and a number of serious adverse respiratory and cardiovascular effects, especially in children, the elderly, and people with existing heart or lung disease. Particulate matter also reduces visibility and damages building materials. Nitrogen oxides are also associated with various other health and welfare effects. Nitrogen dioxide can cause irritation of the lungs and can also reduce the resistance to respiratory infection. 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.

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 engines emit CO and are considered to contribute to several areas failing to attain the National Ambient Air Quality Standards for CO.

Emissions of NMHC from stationary engines 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 to be 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 engines contribute to nationwide releases of NMHC emissions.

Sulfur dioxide (SO_2) is a criteria pollutant emitted from stationary SI engines due to sulfur in gasoline. It contributes to respiratory illness, particularly in children and the elderly, and aggravates existing heart and lung diseases. It also contributes to acid deposition, damaging forests, aquatic ecosystems, crops, and building materials. Sulfur dioxide undergoes chemical reactions in the atmosphere to form sulfate PM. The health effects of PM were previously described in this section. This proposed rule reduces SO_2 and sulfate PM by requiring the use of gasoline with lower sulfur levels, thus improving air quality, public health, and public welfare.

The NESHAP being proposed in this action would regulate emissions of HAP. Available emissions data show that several HAP are emitted from stationary engines, which are formed during the combustion process or that are contained within the fuel burned. Many HAP have been detected from the stationary engine exhaust, but only a handful of HAP represent the majority of HAP emissions from stationary engines. These HAP are formaldehyde, acrolein, methanol, and acetaldehyde. We described the health effects of these HAP and other HAP emitted from the operation of stationary ICE in the preamble to 40 CFR part 63, subpart ZZZZ, published on June 15, 2004, on page 33474 of the **Federal Register**. These HAP emissions are known to cause, or contribute significantly to air pollution, which may reasonably be anticipated to endanger public health or welfare.

Under the RICE NESHAP, we are proposing to limit emissions of HAP through emissions standards for NMHC and formaldehyde. We have determined that it is appropriate to use NMHC and formaldehyde or CO emissions as a surrogate for HAP emissions. For the RICE MHAP promulgated in 2004 (69 FR 33474) for engines greater than 500 HP located at major sources, EPA chose to select a single pollutant to serve as a surrogate for HAP emissions. Formaldehyde is the hazardous air pollutant present in the highest concentration from stationary engines. In addition, emissions data show that formaldehyde emission levels are related to other HAP emission levels. For the NESHAP promulgated in 2004, EPA also found that there is a strong relationship between CO emissions reductions and HAP emissions reductions from 2SLB, 4SLB, and CI stationary engines. Therefore, CO emissions reductions were chosen as a surrogate for HAP emissions reductions for 2SLB, 4SLB, and CI stationary

engines operating with oxidation catalyst systems for that rule. For the standards being proposed in this action, EPA believes that previously made decisions regarding the appropriateness of using formaldehyde and CO as surrogates for HAP are still valid. For this proposal, EPA conducted an analysis using available emissions data to look at the relationship between formaldehyde (a surrogate for HAP) and NMHC. Based on statistical results of engine exhaust data, these data indicate that there is a significant relationship between formaldehyde and NMHC emissions from 2SLB, 4SLB, and CI stationary RICE. For this reason, EPA believes it is appropriate to use NMHC emissions as a surrogate for formaldehyde, and consequently, also as a surrogate for HAP emissions. Much of the HAP being regulated are hydrocarbons; e.g., formaldehyde, an oxygenated hydrocarbon, is the HAP emitted in largest quantities from stationary engines. For more information on EPA's analysis of NMHC as a surrogate for HAP, refer to the docket for this proposal.

C. What are the proposed standards?

A description of the proposed standards is provided in the following sections.

1. SI NSPS

a. Stationary SI Engines ≤19 KW (25 HP). EPA is proposing emission standards that will affect manufacturers, owners, and operators of stationary SI engines. Engine manufacturers must certify their stationary SI engines with a maximum engine power less than or equal to 19 KW (25 HP) that are manufactured after January 1, 2008, to the certification emission standards for new nonroad SI engines in 40 CFR part 90, as applicable. The standards applicable to these engines are shown in Table 1 of this preamble.

TABLE 1.—NO_X, HC, NMHC, AND CO EMISSION STANDARDS IN G/KW-HR (G/HP-HR) FOR STATIONARY SI ENGINES >19 KW (25 HP)

Engine class[c]	Emission requirement in g/KW-hr (g/HP-hr)			Manufacture date[b]
	$HC+NO_X$	$NMHC+NO_X$[a]	CO	
I	16.1 (12.0)	14.8 (11.0)		January 1, 2008.
I–A	50 (37)	....	610 (455)	
I–B	40 (30)	37 (27.6)		
II	12.1 (9.0)	11.3 (8.4)		

[a] $NMHC+NO_X$ standards are applicable only to natural gas fueled engines at the option of the manufacturer, in lieu of $HC+NO_X$ standards.
[b] Modified and reconstructed engines manufactured prior to January 1, 2008, must meet the standards applicable to engines manufactured after January 1, 2008.
[c] Class I–A: Engines with displacement <66 cubic centimeter (cc); Class I–B: Engines with displacement greater than or equal to 66 cc and less than 100 cc; Class I: Engines with displacement greater than or equal to 100 cc and less than 225 cc; Class II: Engines with displacement greater than or equal to 225 cc.

b. Stationary SI Gasoline Engines >19 KW (25 HP) and Rich Burn LPG Engines >19 KW (25 HP). Engine manufacturers must certify their stationary SI engines with a maximum engine power greater than 19 KW (25 HP) and less than 500 HP that use gasoline or rich burn engines greater than 19 KW (25 HP) and less than 500 HP that use LPG that are manufactured after January 1, 2008, to the certification emission standards for new nonroad SI engines in 40 CFR part 1048, as applicable. Engine manufacturers must certify their stationary SI engines with a maximum engine power greater than or equal to 500 HP that use gasoline or rich burn engines greater than or equal to 500 HP that use LPG that are manufactured after July 1, 2007, to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. The standards applicable to engines greater than 19 KW (25 HP) that are gasoline or rich burn engines that use LPG are shown in Table 2 of this preamble.

TABLE 2.—NO_X, HC, AND CO EMISSION STANDARDS IN G/KW-HR (G/HP-HR) FOR STATIONARY SI GASOLINE ENGINES >19 KW (25 HP) AND RICH BURN LPG ENGINES >19 KW (25 HP)

Maximum engine power	Manufacture date	Emission requirement in g/KW-hr (g/HP-hr)[a, b]	
		$HC+NO_X$	CO
25<HP<500[c]	January 1, 2008	2.7 (2.0)	4.4 (3.3)
	January 1, 2008 (severe duty)	2.7 (2.0)	130.0 (97.0)
HP≥500[d]	July 1, 2007	2.7 (2.0)	4.4 (3.3)
	July 1, 2007 (severe duty)	2.7 (2.0)	130.0 (97.0)

[a] You may optionally certify your engines according to the following formula instead of the standards in Table 2 of this preamble: $(HC+NO_X)\times CO^{0.784} \leq 8.57$. The $HC+NO_X$ and CO emission levels you select to satisfy this formula, rounded to the nearest 0.1 g/kW-hr, become the emission standards that apply for those engines. You may not select an $HC+NO_X$ emission standard higher than 2.7 g/kW-hr or a CO emission standard higher than 20.6 g/kW-hr.
[b] Provisions in 40 CFR part 1048 allow engines with a maximum engine power at or below 30 KW (40 HP) with a total displacement at or below 1,000 cubic centimeters (cc) to comply with the requirements of 40 CFR part 90.

[c] Modified and reconstructed engines between 25 and 500 HP manufactured prior to January 1, 2008, must meet the standards applicable to engines manufactured after January 1, 2008.

[d] Modified and reconstructed engines greater than or equal to 500 HP manufactured prior to July 1, 2007, must meet the standards applicable to engines manufactured after July 1, 2007.

In addition to the emission standards shown in Table 2 of this preamble, there are separate field testing standards required under 40 CFR part 1048 that are part of the certification requirements for engine manufacturers.

c. Stationary Non-Emergency SI Natural Gas Engines 19<KW<37 (25<HP<50) and Lean Burn LPG Engines 19<KW<37 (25<HP<50). Owners and operators who purchase stationary SI engines with a maximum engine power between 19 and 37 KW (25 and 50 HP) that are natural gas engines or lean burn engines using LPG that are manufactured after January 1, 2008, must limit their exhaust emissions of NO_X to 2.0 grams per HP-hour (g/HP-hr), emissions of CO to 4.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr. More stringent emission standards take effect 3 years later, i.e., for stationary natural gas engines 19 to 37 KW (25 to 50 HP) and lean burn engines using LPG between 19 and 37 KW (25 and 50 HP) manufactured after January 1, 2011. These engines must comply with a NO_X standard of 1.0 g/HP-hr, a CO standard of 2.0 g/HP-hr, and a NMHC standard of 0.7 g/HP-hr. Engine manufacturers have the option to certify their stationary SI engines to these emission standards. However, the certification is only voluntary, and it is up to the manufacturer to decide if it believes certification is feasible and beneficial. Also, engine manufacturers have the option to certify stationary SI engines between 19 and 37 KW (25 and 50 HP) that are natural gas engines or lean burn engines using LPG to the emission standards in 40 CFR part 1048, as shown in Table 2 of this preamble. Additionally, engine manufacturers may certify engines between 19 and 30 KW (25 and 40 HP) with a displacement of 1,000 cc or less to the provisions of 40 CFR part 90 (shown in Table 1 of this preamble), which is consistent with similar provisions applicable to nonroad engines in this displacement and size category. A summary of the proposed standards for stationary non-emergency SI natural gas engines between 19 and 37 KW (25 and 50 HP) and stationary non-emergency lean burn LPG engines between 19 and 37 KW (25 and 50 HP) is provided in Table 3 of this preamble.

d. Stationary Non-Emergency SI Natural Gas Engines 50≤HP<500 and Lean Burn LPG Engines 50≤HP<500. EPA is proposing emission standards in two stages for these engines. Owners and operators who purchase stationary SI engines with a maximum engine power between 50 and 500 HP that are natural gas engines or lean burn engines using LPG that are manufactured after January 1, 2008, must limit their exhaust emissions of NO_X to 2.0 g/HP-hr, emissions of CO to 4.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr. Again, engine manufacturers may voluntarily certify these stationary SI engines to these emission standards, but the certification is not required by this proposed rule. Stationary SI engines with a maximum engine power between 50 and 500 HP that are natural gas engines or lean burn engines using LPG that are manufactured after January 1, 2011, must limit their exhaust emissions of NO_X to 1.0 g/HP-hr, emissions of CO to 2.0 g/HP-hr, and emissions of NMHC to 0.7 g/HP-hr. A summary of the emission standards EPA is proposing for these engines is shown in Table 3 of this preamble.

TABLE 3.—NO_X, NMHC, AND CO EMISSION STANDARDS IN G/HP-hr FOR STATIONARY SI ENGINES >19KW (25 HP)

[Except Gasoline and Rich Burn LPG Engines]

Engine type and fuel	Maximum engine power	Manufacture date [a]	Emission standards in g/HP-hr		
			NO_X	CO	NMHC
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG	25<HP<500 [a]	January 1, 2008	2.0	4.0	1.0
		January 1, 2011	1.0	2.0	0.7
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG	HP≤500	July 1, 2007	2.0	4.0	1.0
		July 1, 2010	1.0	2.0	0.7
Landfill/Digester Gas	HP≥500	January 1, 2008	3.0	5.0	1.0
		January 1, 2011	2.0	5.0	1.0
	HP≥500	July 1, 2007	3.0	5.0	1.0
		July 1, 2010	2.0	5.0	1.0
Emergency	All Sizes	January 1, 2009	2.0	4.0	1.0

[a] Stationary SI natural gas and lean burn LPG engines between 19 and 37 KW (25 and 50 HP) may comply with the requirements of Table 2 of this preamble, instead of this table, as applicable.

e. Stationary Non-Emergency SI Natural Gas Engines ≥500 HP and Non-Emergency Lean Burn LPG Engines ≥500 HP. EPA is proposing emission standards in two stages for stationary non-emergency SI natural gas engines greater than or equal to 500 HP and non-emergency lean burn LPG engines greater than or equal to 500 HP. Owners and operators who purchase stationary SI engines with a maximum engine power greater than or equal to 500 HP that are natural gas engines or lean burn engines using LPG that are manufactured after July 1, 2007, must limit their exhaust emissions of NO_X to 2.0 g/HP-hr, emissions of CO to 4.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr. Engine manufacturers may voluntarily certify these stationary SI engines to these emission standards, but the certification is not required by the rule, as proposed. Stationary SI engines with a maximum engine power greater than or equal to 500 HP that are natural gas engines or lean burn engines using LPG that are manufactured after July 1, 2010, must limit their exhaust emissions of NO_X to 1.0 g/HP-hr, emissions of CO to 2.0 g/HP-hr, and emissions of NMHC to 0.7 g/HP-hr. Again, manufacturers may voluntarily certify their engines to these emission standards. A summary of the emission standards EPA is proposing for these engines is shown in Table 3 of this preamble.

f. Stationary SI Landfill/Digester Gas Engines. Similar to other stationary SI engines, EPA is proposing emission standards in two stages for landfill and digester gas fired engines. Owners and operators who purchase stationary landfill or digester SI engines that are manufactured after July 1, 2007, that are greater than or equal to 500 HP must limit their exhaust emissions of NO_X to 3.0 g/HP-hr, emissions of CO to 5.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr. Stationary landfill and digester gas SI engines greater than or equal to 500 HP that are manufactured after July 1, 2010, must limit their exhaust emissions of NO_X to 2.0 g/HP-hr, emissions of CO to 5.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr. Again, engine manufacturers may voluntarily certify these stationary SI engines to these emission standards, but the certification is not required by the rule, as proposed. Stationary SI engines that use landfill or digester gas that are less than 500 HP are given an extra 6 months to comply with the standards. The first stage of limits of 3.0, 5.0, and 1.0 g/HP-hr, for NO_X, CO, and NMHC, respectively, applies to landfill and digester gas engines manufactured after January 1, 2008. The second stage of limits of 2.0, 5.0, and 1.0 g/HP-hr, for NO_X, CO, and NMHC, respectively, applies to landfill and digester gas engines manufactured after January 1, 2011. A summary of the emission standards EPA is proposing for these engines is shown in Table 3 of this preamble.

g. Stationary Emergency SI Engines. For stationary SI engines that are emergency engines, EPA is proposing a single stage of emission limits. Owners and operators who purchase stationary emergency engines that are manufactured after January 1, 2009, must limit their exhaust emissions of NO_X to 2.0 g/HP-hr, emissions of CO to 4.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr.

h. Fuel Requirements. In addition to emission standards, EPA is proposing that owners and operators who use gasoline in their stationary SI engine must use gasoline that meets the requirements of 40 CFR 80.195. The requirements include a gasoline sulfur per gallon cap of 80 parts per million (ppm).

2. NESHAP

a. Engines ≤500 HP at Major Sources. We are proposing that owners and operators of new and reconstructed stationary SI engines with a site rating of equal to or less than 500 HP located at a major source of HAP emissions must generally meet the same NMHC emission standards for new SI engines as proposed for the NSPS in 40 CFR part 60, subpart JJJJ.

One major difference between the SI NSPS and NESHAP requirements is that owners and operators of new or reconstructed 4SLB SI stationary engines between 250 and 500 HP located at a major source are required to either reduce CO emissions by 93 percent or more, or limit the concentration of formaldehyde in the stationary engine exhaust to 14 ppm by volume, dry basis (ppmvd) or less, at 15 percent oxygen (O_2). These engines would not be required to meet the NMHC standard. The formaldehyde standard is more stringent than the NMHC stage 1 and stage 2 emission standards of 1.0 and 0.7 g/HP-hr, respectively.

Under the NESHAP, owners and operators of new and reconstructed landfill and digester gas fired engines and new and reconstructed SI emergency engines are subject to the NMHC emission standards that are being proposed under the SI NSPS. New and reconstructed landfill and digester gas engines must, under the NESHAP, meet NMHC emission standards consistent with the SI NSPS, i.e., a NMHC standard of 1.0 g/HP-hr. Owners and operators of stationary landfill and digester gas engines must meet the NMHC standard if they are manufactured after January 1, 2008.

For new and reconstructed stationary SI engines with a site rating of equal to or less than 500 HP located at a major source of HAP emissions that are emergency engines, owners and operators who purchase such engines that are manufactured after January 1, 2009, must limit their exhaust emissions of NMHC to 1.0 g/HP-hr.

Finally, owners and operators of new and reconstructed stationary CI engines with a site rating of equal to or less than 500 HP located at a major source of HAP emissions that purchase 2007 model year and later stationary CI engines must meet the NMHC and PM emission standards for new CI engines specified in 40 CFR part 60, subpart IIII. Those standards are generally based on the certification emission standards for new nonroad CI engines. A summary of the standards being proposed for stationary engines less than or equal to 500 HP located at major sources is presented in Table 4 of this preamble.

Owners and operators of existing stationary engines with a site rating of equal to or less than 500 HP located at a major source of HAP emissions have an emissions standard of no emission reduction and are not subject to any specific requirements under subpart ZZZZ or subpart A of 40 CFR part 63. A stationary RICE is existing if it commences construction or reconstruction before June 12, 2006.

TABLE 4.—EMISSION STANDARDS FOR STATIONARY RICE >500 HP LOCATED AT MAJOR SOURCES OF HAP EMISSIONS AND STATIONARY RICE LOCATED AT AREA SOURCES OF HAP EMISSIONS

Engine type and fuel	Maximum engine power	Manufacture date [a]	Emission standards
Existing All Fuels and All Types	All Sizes	No Emission Reduction.	
New/Reconstructed SI	≤25 HP	January 1, 2008 ...	Meet 40 CFR part 60 subpart JJJJ.
New/Reconstructed SI Gasoline and Rich Burn LPG.	25>HP<500	January 1, 2008 ...	Meet 40 CFR part 60 subpart JJJJ.
	HP≥500	July 1, 2007	
New/Reconstructed Non-Emergency SI Natural Gas.	25<HP<500 [a]	January 1, 2008 ...	1.0 g/HP-hr NMHC.
and			
New/Reconstructed Non-Emergency SI Lean Burn LPG [b].		January 1, 2011 ...	0.7 g/HP-hr 2011 NMHC.
New/Reconstructed Non-Emergency SI Natural Gas.	HP≥500	July 1, 2007	1.0 g/HP-hr NMHC
HP≤500	July 1, 2007	1.0 g/HP-hr NMHC..	

TABLE 4.—EMISSION STANDARDS FOR STATIONARY RICE >500 HP LOCATED AT MAJOR SOURCES OF HAP EMISSIONS AND STATIONARY RICE LOCATED AT AREA SOURCES OF HAP EMISSIONS—Continued

Engine type and fuel	Maximum engine power	Manufacture date [a]	Emission standards
and			
New/Reconstructed Non-Emergency SI Lean Burn LPG.	.....	July 1, 2010	0.7 g/HP-hr NMHC.
New/Reconstructed Non-Emergency SI 4SLB at Major Sources (except landfill and digester gas) [b].	250<HP ≤500	January 1, 2008 ...	93% CO Reduction or 14 ppmvd formaldehyde.
CI All Fuels	All Sizes	2007+ Model Year	Meet 40 CFR part 60 subpart IIII.
Landfill/Digester Gas	HP<500	January 1, 2008 ...	1.0 g/HP-hr NMHC.
	HP≥500	July 1, 2007	1.0 g/HP-hr NMHC.
Emergency SI	All Sizes	January 1, 2009 ...	1.0 g/HP-hr NMHC.

[a] Stationary SI natural gas and lean burn LPG engines between 19 and 37 KW (25 and 50 HP) may comply with the requirements of Table 2 of this preamble, instead of this table, as applicable.

[b] New and reconstructed non-emergency 4SLB engines at major sources with a site rating between 250 and 500 HP are not required to meet the 1.0 and 0.7 g/HP-hr NMHC emission standards.

b. Engines at Area Sources. We are proposing that owners and operators of new and reconstructed stationary engines located at area sources of HAP emissions generally meet the same requirements that apply to new and reconstructed stationary engines with a site rating of equal to or less than 500 HP located at a major source of HAP emissions. New and reconstructed stationary engines located at area sources with a site rating greater than 500 HP are required to meet the same NMHC standard as proposed in the SI NSPS for the engine's HP classification, or the same NMHC and PM standards as proposed in the CI NSPS for the engine's HP classification.

There is only one difference between the requirements for new and reconstructed stationary engines located at area sources and new and reconstructed stationary engines with a site rating of equal to or less than 500 HP located at major sources. Owners and operators of new or reconstructed 4SLB SI stationary engines between 250 and 500 HP located at area sources are not required to reduce CO emissions by 93 percent or more, or limit the concentration of formaldehyde in the stationary engine exhaust to 14 ppmvd or less at 15 percent O_2. New and reconstructed stationary SI engines located at area sources must, however, meet the NMHC emission standards shown in Table 4 of this preamble.

Owners and operators of existing stationary engines located at an area source of HAP emissions have an emission standard of no emission reduction and are not subject to any specific requirements under subpart ZZZZ or of subpart A of 40 CFR part 63.

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

1. SI NSPS

The proposed standards apply to stationary SI engines subject to the SI NSPS that are modified or reconstructed after June 12, 2006. 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 SI ICE less than or equal to 19 KW (25 HP) manufactured prior to January 1, 2008 that are modified or reconstructed after June 12, 2006 are required to meet the standards that apply to engines manufactured after January 1, 2008.

Stationary SI gasoline and rich burn LPG engines between 25 HP and 500 HP manufactured prior to January 1, 2008 that are modified or reconstructed after June 12, 2006 are required to meet the standards applicable to engines manufactured after January 1, 2008.

Stationary SI gasoline and rich burn LPG engines greater than or equal to 500 HP manufactured prior to July 1, 2007 that are modified or reconstructed after June 12, 2006 are required to meet the standards applicable to engines manufactured after July 1, 2007.

Stationary SI natural gas and lean burn LPG engines less than 500 HP manufactured prior to January 1, 2008 that are modified or reconstructed after June 12, 2006 are required to meet a NO_X emission standard of 3.0 g/HP-hr, a CO standard of 4.0 g/HP-hr, and a NMHC standard of 1.0 g/HP-hr.

Stationary SI natural gas and lean burn LPG engines greater than or equal to 500 HP manufactured prior to July 1, 2007 that are modified after June 12, 2006, are required to meet a NO_X emission standard of 3.0 g/HP-hr, a CO standard of 4.0 g/HP-hr, and a NMHC standard of 1.0 g/HP-hr.

Stationary SI landfill and digester gas engines less than 500 HP manufactured prior to January 1, 2008 that are modified or reconstructed after June 12, 2006 are required to meet a NO_X emission standard of 3.0 g/HP-hr, a CO standard of 5.0 g/HP-hr, and a NMHC standard of 1.0 g/HP-hr. Stationary SI landfill and digester gas engines greater than or equal to 500 HP manufactured prior to July 1, 2007 that are modified after June 12, 2006 are required to meet a NO_X emission standard of 3.0 g/HP-hr, a CO standard of 5.0 g/HP-hr, and a NMHC standard of 1.0 g/HP-hr.

Stationary SI emergency engines manufactured prior to January 1, 2009 that are modified or reconstructed after June 12, 2006 are required to meet a NO_X emission standard of 3.0 g/HP-hr, a CO standard of 4.0 g/HP-hr, and a NMHC standard of 1.0 g/HP-hr.

2. NESHAP

Similar concepts as those discussed above apply to engines subject to 40 CFR part 63 regulations; however, the concept of modification is not included in 40 CFR part 63. The proposed standards apply to stationary engines subject to the NESHAP that commence reconstruction on or after June 12, 2006. The reconstruction criteria are provided in 40 CFR 63.2.

E. What are the requirements for demonstrating compliance?

The following sections describe the requirements for demonstrating compliance under the stationary SI NSPS and NESHAP.

1. SI NSPS

Owners and operators of stationary engines subject to the requirements of the SI NSPS must operate and maintain

their stationary engine and after treatment control device (if any) according to the manufacturer's written instructions. Manufacturers of stationary SI engines required to certify their engines must demonstrate compliance by certifying that their stationary SI engines meet the emission standards, as specified in 40 CFR part 60, subpart JJJJ, as applicable, using the certification procedures in subpart B of 40 CFR part 90 and subpart C of 40 CFR part 1048, as applicable, and must test their engines as specified in those parts. Manufacturers who conduct voluntary certification must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D–2 cycle in International Organization for Standardization (ISO) 8178–4 for stationary engines. The test cycle requirements that manufacturers who conduct voluntary certification should follow are provided in Table 3 to 40 CFR 1048.505.

Manufacturers who opt to voluntary certify their stationary SI engines to the emission standards specified in this subpart must certify their engines using fuel that meets the definition of pipeline-quality natural gas, which according to the proposed definition must be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

If the manufacturer chooses to certify its stationary SI engines to another fuel, the manufacturer must specify the properties of that fuel and what adjustments the owner or operator must make to the engine during installation in the field in order to meet the emission standards. The manufacturer must also perform certification testing on the engine on that fuel, as it would if it was certifying to pipeline-quality natural gas, in order to assure compliance with the emission standards. Manufacturers who conduct voluntary certification of stationary SI ICE must also provide instructions to the owner and operator for configuring the stationary engine to meet the emission standards on fuels that meet the pipeline-quality natural gas specifications and fuels that do not meet the pipeline-quality natural gas specifications. The manufacturer must provide information to the owner and operator of the certified stationary SI engine regarding the particular fuels to which the engine is certified, and instructions regarding configuring the engine in a manner most appropriate for reducing pollutant emissions for engines operating on such fuels. Owners and operators may operate their certified engine on other fuels that the engine is not certified to, but the engine would no longer be considered a certified engine and the owner or operator would be required to test the engine to demonstrate compliance with the emission standards.

EPA is proposing to allow owners and operators of natural gas engines to use propane as back up fuel for emergency purposes for no more than 100 hours per year. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards.

Owners and operators that operate engines that have been certified by the engine manufacturer are not required to perform any performance testing unless the engine is operated outside of the fuel properties specified by the manufacturer. If the owner or operator uses fuels that are outside of the fuel specifications or does not follow the adjustments specified by the manufacturer, the engine is no longer considered a certified engine and the owner or operator must test the engine to demonstrate compliance. If the engine is no longer considered a certified engine, the owner or operator must test the engine according to the test procedures that are specified for uncertified engines, as specified in this proposed rule.

Owners and operators subject to the emission standards specified in this proposed rule who use stationary SI engines with a maximum engine power of less than or equal to 19 KW (25 HP) or who use stationary SI engines with a maximum engine power greater than 19 KW (25 HP) and use gasoline or are rich burn engines greater than 19 KW (25 HP) using LPG must demonstrate compliance by using an engine certified to the emission standards specified in 40 CFR part 90 or 1048, as applicable.

Owners and operators subject to this proposed rule who use stationary SI engines with a maximum engine power greater than 19 KW (25 HP) that use fuels other than gasoline and that are not rich burn engines greater than 19 KW (25 HP) that use LPG, must demonstrate compliance by either using an engine certified to the emission standards specified in Table 3 of this preamble or by conducting an initial performance test to demonstrate compliance with the emission standards specified in Table 3 of this preamble. If the owner or operator purchases a certified engine, performance testing would not be required (unless the engine is operated differently than specified by the manufacturer). Owners and operators of uncertified engines that are greater than 500 HP must conduct subsequent performance tests every 3 years, or 8,760 hours of operation, whichever comes first.

2. NESHAP

Consistent with the requirements for owners and operators subject to the SI NSPS, owners and operators of stationary engines subject to the requirements of the NESHAP must also operate and maintain their stationary engine and exhaust aftertreatment device (if any) according to the manufacturer's written instructions. This requirement applies to stationary SI and CI engines regulated under this proposed rule.

Owners and operators subject to the NESHAP who use stationary SI engines must demonstrate compliance by meeting the NMHC emission standards specified in 40 CFR part 60, subpart JJJJ (unless they are new or reconstructed non-emergency 4SLB SI stationary RICE between 250 and 500 HP located at major sources). Under 40 CFR part 60, subpart JJJJ, as described in the previous section, certain stationary SI engines must be certified to the emission standards in 40 CFR part 90 or 1048, as applicable.

Owners and operators of uncertified SI engines subject to the emission standards proposed in the NESHAP must conduct an initial performance test to demonstrate compliance with the emission standards. Owners and operators of certified engines are not required to conduct any performance testing (unless the engine is operated differently than procedures specified by the manufacturer or procedures developed by the owner or operator that are approved by the engine manufacturer). Owners and operators of uncertified engines that are greater than 500 HP, subject to the emission standards proposed in this action must conduct subsequent performance tests every 3 years, or 8,760 hours of operation, whichever comes first. Owners and operators of uncertified engines subject to emission standards that are less than or equal to 500 HP are not required to perform subsequent performance tests after the initial performance test, unless the stationary engine is rebuilt or undergoes major repair or maintenance.

Owners and operators of new and reconstructed non-emergency 4SLB engines between 250 and 500 HP that are located at major sources of HAP emissions must demonstrate compliance

by conducting an initial performance test. These engines must also conduct subsequent performance test semiannually if they are complying with the requirement to reduce CO emissions and not using a continuous emissions monitoring system, and if they are complying with the requirement to limit the concentration of formaldehyde in the stationary engine exhaust.

Owners and operators subject to the NESHAP who use stationary CI engines must demonstrate compliance by using an engine certified to the NMHC and PM emission standards specified in 40 CFR part 60, subpart IIII, and by operating their engine properly, as stated above. The only exception is for owners and operators of stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder who must demonstrate compliance through performance testing.

F. What are the reporting and recordkeeping requirements?

The following sections describe the reporting and recordkeeping requirements that are required under the SI NSPS and the NESHAP.

1. SI NSPS

Owners and operators of all engines (certified and uncertified) are required to maintain records of proper maintenance. An initial notification is required for owners and operators of engines greater than 500 HP that are not certified. Also, owners and operators who conduct performance testing are required to report the test results within 30 days of each performance test.

Owners and operators of emergency engines are required to keep records of their hours of operation. Owners and operators must install a non-resettable hour meter on their engines to record the necessary information. Emergency stationary engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. Owners and operators can petition the Administrator for additional hours, beyond the allowed 100 hours per year, if such additional hours should prove to be necessary for maintenance and testing reasons. A petition is not required if the hours beyond 100 hours per year for maintenance and testing purposes are mandated by regulation such as State or local requirements. There is no time limit on the use of emergency stationary engines in emergency situations, however, the owner or operator is required to record the length of operation and the reason the engine was in operation during that time. Records must be maintained documenting why the engine was operating to ensure the 100 hours per year limit for maintenance and testing operation is not exceeded.

2. NESHAP

Consistent with the SI NSPS (and the already proposed CI NSPS), owners and operators of stationary emergency engines (SI and CI) are required to keep records of their hours of operation under the NESHAP. Owners and operators must install a non-resettable hour meter on their engines to record the necessary information. Emergency stationary engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. Owners and operators can petition the Administrator for additional hours, beyond the allowed 100 hours per year, if such additional hours should prove to be necessary for maintenance and testing reasons. A petition is not required if the hours beyond 100 hours per year for maintenance and testing purposes are mandated by regulation such as State or local requirements. There is no time limit on the use of emergency stationary engines in emergency situations. Owners and operators must also maintain records documenting the reason the engine was in operation.

The above proposed requirement to limit the operation of maintenance and testing operation to 100 hours per year is different than the requirement that was finalized for stationary engines greater than 500 HP located at major sources. Currently, stationary emergency engines greater than 500 HP located at major sources are required to limit non-emergency operation to 50 hours per year. Multiple comments received during the public comment period for NSPS for stationary CI engines argued that EPA should allow 100 hours per year for emergency engines to conduct necessary maintenance and testing. Based on those comments, EPA believes it would be appropriate to propose to allow 100 hours per year for maintenance and testing operation for emergency engines. As discussed, EPA is proposing 100 hours per year for maintenance and testing operation under the SI NSPS and the NESHAP being proposed in this action for stationary engines with a site rating of 500 HP or less located at major sources and stationary engines located at area sources. EPA believes it is appropriate to propose to amend the requirements of stationary engines greater than 500 HP located at major sources to allow emergency engines to operate 100 hours per year for maintenance and testing purposes. It is crucial to allow sufficient hours for maintenance and readiness testing to ensure that the emergency engine will respond as expected in the event of an emergency and EPA believes that 100 hours per year is adequate. EPA also believes it is appropriate to amend the emergency engine hour limitation in the NESHAP for stationary RICE greater than 500 HP located at major sources to ensure consistency between regulations affecting the same or similar sources. Further, as discussed, based on information received since the promulgation of the NESHAP for stationary RICE greater than 500 HP located at major sources, the 50 hours per year allowance currently in that regulation would not be sufficient to address necessary maintenance, testing, and readiness operation for emergency engines, and EPA is, therefore, proposing to increase the limitation to 100 hours per year.

Owners and operators of new and reconstructed stationary RICE which fire landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual affected by subpart ZZZZ of 40 CFR part 63, must monitor and record the fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel.

IV. Rationale for Proposed Rule

A. Which control technologies apply to stationary engines?

EPA reviewed various control technologies applicable to stationary engines. For detailed information on the control technology review that EPA conducted, refer to information in the docket for this proposed rule. The following sections provide general descriptions of currently available controls that can be used to reduce emissions from stationary engines.

Non-selective catalytic reduction (NSCR) has been commercially available for many years and has been widely used on stationary engines. The technology can be applied to rich burn stationary engines and is capable of reducing NO_X emissions by 90 percent or more. The technology also reduces CO by about 90 percent. Emissions of NMHC and HAP are also reduced by

using the catalyst and significant reductions have been recorded. Based on our information, NSCR appears to be technically feasible for rich burn engines down to 19 KW (25 HP).

Selective catalytic reduction (SCR) is applicable to lean burn stationary engines, but has not been widely used on stationary SI engines. This technology is capable of achieving NO_X reductions of at least 90 percent. An oxidation catalyst is often used in conjunction with SCR to reduce emissions of CO, NMHC, and HAP. The technology has not been commonly applied to stationary engines and if applied, the applications have typically been on larger lean burn engines. Costs of SCR are generally high, including significant equipment, installation, and operating costs.

Oxidation catalyst is another type of aftertreatment that can be applied to stationary engines and is typically used with lean burn engines. The technology can be applied to either diesel or gas fired lean burn engines. Emissions of CO can be reduced by 90 percent or more and significant NMHC and HAP reductions are also possible. Applying the technology to diesel fired engines can reduce PM by about 25 to 30 percent. Oxidation catalyst control has been widely used and has been available for decades for use with lean burn stationary engines.

Catalyzed diesel particulate filters (CDPF) are applicable to CI engines using diesel fuel and are primarily used to reduce PM emissions. The technology is a newer technology than other aftertreatment control devices, but is becoming increasingly widespread. Applying CDPF can reduce PM emissions by 90 percent or more, and reductions in CO and HAP can be significant. The technology appears to be applicable to a wide range of diesel engines, except there may be issues with respect to applying the technology to smaller engines (less than 19 KW (25 HP)), and potentially also to extremely large engines (several thousand HP). Catalyzed diesel particulate filters are the basis for the Tier 4 emission standards for PM for most nonroad CI engines regulated by 40 CFR part 1039 and also for most new non-emergency stationary CI engines regulated under 40 CFR part 60, subpart IIII. Recently finalized standards for stationary CI engines in California are also based on the use of particulate filters in some cases.

Stationary SI engines burning natural gas typically have low levels of PM in the order of 0.01 g/HP-hr, according to engine manufacturers. This level is comparable to Tier 4 levels that nonroad and stationary CI engines will achieve with CDPF. For these reasons, EPA is not proposing PM emission standards for stationary SI engines. Emissions of sulfur oxides (SO_X) are usually low from natural gas fired engines since, in most cases, the fuel is inherently very low in sulfur. There are no controls currently available to control SO_X in the exhaust from stationary engines; the only way to limit SO_X is to minimize sulfur in the fuel.

Although aftertreatment devices can help achieve very significant reductions in exhaust emissions from stationary engines, there are other strategies available which can help reduce emissions. For example, lean burn technology alone produces much lower levels of NO_X than rich burn engines. In a lean burn engine, excess air is introduced into the engine with the fuel, reducing the temperature of the combustion process, which in turn reduces the NO_X significantly compared to a rich burn engine. Also, because excess O_2 is available, combustion is more efficient, so more power is produced with the same amount of fuel. Another example of an emission reduction strategy that prevents the formation of NO_X is exhaust gas recirculation. Exhaust gas recirculation has been widely used in automotive engines for many years to reduce NO_X emissions and could potentially be used in stationary engine applications. Also, in SI engines, modifications of the combustion chamber and fuel metering system can help improve mixing of the fuel and air, thus improving NMHC emissions. Spark-timing calibrations can also help reduce CO and NMHC emissions.

B. How did EPA determine the basis and level of the proposed standards?

1. SI NSPS

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 non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.''

The following discussion provides 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 reductions that has been adequately demonstrated is a set of emissions standards, including an averaging, banking and trading program, where applicable, that allows for the use of other potential technologies that meet or exceed the standards.

a. Stationary SI Engines ≤19 KW (25 HP). For stationary SI engines less than or equal to 19 KW (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 SI engine Phase 2 standards in this size range. The Phase 2 nonroad engine program will lead to increased use of automotive-style overhead valve technology for nonhandheld engines and is expected to be the technology that is relied upon to meet Phase 2 emission standards. Stationary engines less than or equal to 19 KW (25 HP) are required to be certified to the emission standards for new nonroad SI engines as specified in 40 CFR part 90. These standards are separated by the class of the engine (Class I through Class V) and each class is determined by the use of the engine, i.e., handheld or nonhandheld, and engine displacement. Phase 1 standards took effect for most new handheld and nonhandheld engines beginning in model year 1997. Phase 2 standards for nonhandheld engines are being phased in between 2001 and 2007. Phase 2 standards for handheld engines have been phased in starting in 2002. EPA believes it is appropriate to require new stationary SI engines less than or equal to 19 KW (25 HP) to meet the Phase 2 emission standards for nonhandheld nonroad SI engines, as nonhandheld engines would be more similar to stationary engines than handheld engines, and because by definition, a stationary engine cannot be a handheld engine. EPA believes that it is appropriate that the emission standards for new stationary SI engines less than or equal to 19 KW (25 HP) are the same as those for nonroad SI engines in this size range. To determine the BDT for these size engines, EPA analyzed the emission control strategies selected for the nonroad SI engine rule for engines less than or equal to 19 KW (25 HP). EPA concluded that the level and implementation timing of the nonroad SI engine standards are the most appropriate that can be justified for this size group of engines. EPA believes a manufacturer-based certification program is also appropriate for this group of engines and that there is little difference, if any, between nonroad and stationary SI engines in this size range. Engine manufacturers are already familiar with and have experience in

certifying their engine families according to EPA's certification program. For the reasons provided, BDT for stationary SI engines less than or equal to 19 KW (25 HP) is determined to be the control technologies used to comply with Phase 2 emission standards for nonhandheld nonroad SI engines under 40 CFR part 90. EPA is also proposing to allow manufacturers to certify any engine with a maximum engine power between 19 and 30 KW (25 and 40 HP) with total displacement of 1,000 cc or less to the nonhandheld nonroad SI engine standards under 40 CFR part 90. This option is already available for nonroad engines with these maximum power and displacement characteristics.

EPA expects to propose new standards in the near future applicable to nonroad SI engines less than or equal to 19 KW (25 HP) that will be more stringent than Phase 2 standards, giving appropriate lead time for the requirements. EPA will consider incorporating these more stringent standards into its stationary SI NSPS regulations as they apply to stationary SI engines in this HP range at the same time it revises its nonroad standards for SI engines.

EPA requests public comment on the issue of evaluating the appropriateness of future small non-road engine emission standards as they may apply to stationary SI engines less than or equal to 19 KW (25 HP).

b. Stationary SI Gasoline Engines >19 KW (25 HP) and Rich Burn LPG Engines >19 KW (25 HP). For stationary SI engines greater than 19 KW (25 HP) that use gasoline and rich burn engines greater than 19 KW (25 HP) that use LPG, the technology that is the basis of the proposed standards are the technologies used by nonroad SI engines greater than 19 KW (25 HP) to comply with the emission standards in 40 CFR part 1048. The majority of nonroad SI engines greater than 19 KW (25 HP) use LPG, but some operate on gasoline or natural gas. There are two tiers for nonroad SI engines in this size category. Tier 1 standards were scheduled to begin in 2004; Tier 2 standards will begin in 2007. The upcoming Tier 2 standards are based on three-way catalyst systems with electronic, closed-loop fuel systems. For stationary SI engines greater than 19 KW (25 HP) that use gasoline or are rich burn engines greater than 19 KW (25 HP) that use LPG, EPA believes these engines are very similar to nonroad SI equipment, and the same engines designed for use in nonroad applications are used in stationary applications. Therefore, for stationary SI engines greater than 19 KW (25 HP) that use gasoline and rich burn engines greater than 19 KW (25 HP) that use LPG, the BDT is the technology that is the basis for the Tier 2 emission standards for nonroad engines above 19 KW (25 HP) regulated under 40 CFR part 1048.

c. Stationary Non-Emergency SI Natural Gas Engines 25<HP<500 and SI Lean Burn LPG Engines 25<HP<500. For stationary non-emergency SI natural gas and lean burn LPG engines between 25 and 500 HP, EPA believes that these engines can be different than nonroad SI engines in the same size range that use gasoline or that are rich burn engines using LPG, and that more stringent standards are possible for these engines provided that sufficient lead time is given. Therefore, EPA evaluated currently available control technologies to reduce criteria pollutant emissions from these stationary SI engines. However, EPA is proposing to allow manufacturers to certify any SI natural gas or lean burn LPG engines between 19 and 37 KW (25 and 50 HP) to the standards for nonroad engines in this power range in 40 CFR part 1048 as an alternative to the standards being proposed in the SI NSPS. EPA believes that engines between 19 and 37 KW (25 and 50 HP) can be similar to nonroad engines in this size range and, therefore, feels it is appropriate to provide engine manufacturers with the option to certify these engines to 40 CFR part 1048. However, for engines greater than 37 KW (50 HP), EPA is not including this option. EPA believes that natural gas engines and lean burn LPG engines greater than 37 KW (50 HP) are different than those less than 37 KW (50 HP), which tend to be more like mobile engines and for that reason is proposing the emission standards discussed below.

For natural gas rich burn stationary engines, the technology that is the basis for the proposed standards is NSCR and is essentially the same technology as a three-way catalyst. As discussed, NSCR is widely available and has commonly been used on stationary rich burn engines across the U.S. The technology was the basis for the emission standards for HAP for the NESHAP for stationary RICE greater than 500 HP located at major sources and is also the basis for many State requirements for rich burn engines. Non-selective catalytic reduction has primarily been installed to reduce emissions of NO_X, but is also effective in reducing CO and NMHC emissions from stationary rich burn engines. No other technology was identified as applicable to rich burn engines that would achieve equivalent or higher emission reductions than NSCR. The technology can be purchased, installed, and operated for a reasonable cost on new engines and requires no extensive operator training or expertise. The technology is available from many catalyst vendors and is simple to acquire. For the reasons provided, BDT for rich burn engines between 25 and 500 HP that use fuels other than gasoline and LPG is NSCR.

As discussed, EPA is proposing a stage 1 NO_X emission limit of 2.0 g/HP-hr for stationary non-emergency SI engines between 25 and 500 HP that burn natural gas or that are lean burn engine using LPG. This limit would apply to engines manufactured after January 1, 2008. EPA believes that January 1, 2008, will provide sufficient time for engine manufacturers and owners and operators to make the necessary adjustments and preparations in order to develop and certify engines that are able to achieve the proposed standards. These engines would also have to meet a CO emission limit of 4.0 g/HP-hr and a NMHC emission limit of 1.0 g/HP-hr. EPA received information on the emissions from new stationary SI engines from various engine manufacturers. The average NO_X engine-out levels for rich burn engines without aftertreatment were in the order of 12 to 15 g/HP-hr. It is estimated that applying NSCR to new uncontrolled rich burn engines would be able to achieve controlled NO_X levels between 1.2 and 1.5 g/HP-hr, perhaps lower if the catalyst is designed for higher NO_X reduction. Based on these estimates, EPA feels it is reasonable to require a stage 1 NO_X emission limit of 2.0 g/HP-hr, which is based on engines using aftertreatment control. A stage 1 limit of 2.0 g/HP-hr takes into account uncertainty associated with meeting the standard. The engine may be capable of emitting an average of 1.5 g/HP-hr, but NO_X emissions may fluctuate above and below that level. A standard of 2.0 g/HP-hr provides the necessary flexibility to account for such fluctuations, which may occur from the engine control or aftertreatment systems, operational conditions, and/or variations in fuel quality.

For stage 2, EPA is proposing a more stringent NO_X emission limit of 1.0 g/HP-hr for stationary SI engines manufactured after January 1, 2011. Again, EPA is incorporating adequate lead time to account for steps engine manufacturers and owners and operators must take between stages 1 and 2 to achieve the standards throughout the new engine category. EPA has analyzed emissions information from several stationary rich burn engines and has concluded that the

1.0 g/HP-hr limit for NO_X is appropriate for the second stage of emissions requirements. As the uncontrolled NO_X levels indicate, levels lower than 1.5 g/HP-hr are possible with an NSCR reducing NO_X by 90 percent. In addition, a catalyst can be designed to optimize NO_X reduction and with an increased reduction efficiency, the proposed stage 2 NO_X emission limit can be achieved. The stage 2 limit beginning with engines manufactured after January 1, 2011, also gives manufacturers time to improve the design of their engines, which would make the stage 2 NO_X emission limits more easily attainable.

For CO, a similar approach was followed. The average engine-out CO levels for rich burn engines without aftertreatment controls vary between 7 and 13 g/HP-hr. A stage 1 CO limit would be easily achievable through application of NSCR. Similarly, using NSCR, the stage 2 limit for CO is expected to be achievable by all rich burn engines. The stage 2 standards recognize the inverse relationship between NO_X and CO emissions. In order to optimize NO_X emission reductions, CO emission reductions may not be as large. EPA believes the stage 2 CO limit is achievable by new rich burn engines by using NSCR and expects significant reductions from uncontrolled levels.

Finally, for NMHC, EPA is proposing a limit of 1.0 g/HP-hr for stage 1 and a limit of 0.7 g/HP-hr for stage 2. As with the relationship between NO_X and CO, the relationship between NO_X and NMHC, in terms of their formation during combustion, is inverse in nature. Uncontrolled NMHC emissions from new rich burn engines are between 0.6 and 1.0 g/HP-hr. Therefore, EPA believes that the proposed limit for NMHC is achievable.

For SI lean burn engines, EPA considered SCR. The technology is effective in reducing NO_X emissions, as well as other pollutant emissions, if an oxidation catalyst element is included. However, the technology has not been widely applied to stationary SI engines and has mostly been used with diesel engines and larger applications thousands of HP in size. The technology requires a significant understanding of its operation and maintenance requirements and is not a simple process to manage. Installation can be complex and requires experienced operators. Costs of SCR are high, and have been rejected frequently by States for this reason. EPA does not believe that SCR is a reasonable option for stationary SI lean burn engines. Stationary lean burn engines are, by design, low NO_X emitting units and have sometimes been favored over rich burn engines in areas with stringent air pollution control requirements due to their lower NO_X level. There are no other currently available add-on control technologies on the market to further reduce NO_X emissions from stationary SI lean burn engines, but low NO_X emission strategies and design are currently being used to minimize NO_X levels. Based on information received from engine manufacturers who produce such engines, average NO_X levels from 4SLB engines are between 1.0 and 2.0 g/HP-hr, which are comparable to engine-out NO_X levels from a rich burn engine with a catalyst. Carbon monoxide levels are also low from these engines and can be as low as 2.0 g/HP-hr. Stationary SI uncontrolled lean burn engines are much cleaner than uncontrolled rich burn engines. Levels of CO in lean burn engines are much lower than rich burn engines. Although oxidation catalysts can be installed in lean burn engines, EPA believes that no further controls are needed, given the already-low engine-out CO and NMHC emissions from them. The CO levels emitted from new lean burn SI engines are comparable to controlled levels from rich burn engines. For these reasons, the BDT for stationary SI lean burn engines is the low emitting level achieved by design and on-engine controls, and other combustion optimization techniques employed in new stationary SI lean burn engines. The BDT is the level achieved by new lean burn engines.

There are a few new stationary natural gas fired 2SLB sold per year in the U.S., but the total number manufactured and sold in the U.S. is insignificant compared to the number of other engine designs sold. In addition, there are only a few manufacturers who produce such engines. Available information shows that 2SLB engines that are pre-chamber combustion designs have similar emissions to natural gas fired 4SLB engines, and one manufacturer indicated that nearly all of the engines it sells for the U.S. are pre-chamber combustion engines.

d. Stationary Non-Emergency Natural Gas Engines ≥500 HP and Lean Burn LPG Engines ≥500 HP. For natural gas fired rich burn engines greater than or equal to 500 HP, the technology that is the basis for the proposed standards is NSCR. The technology was discussed in previous sections of this preamble and for the reasons discussed in that section, NSCR represents BDT for natural gas fired rich burn engines 500 HP and above.

The technology that is the basis for the proposed standards for lean burn natural gas and LPG engines greater than or equal to 500 HP is the level achieved by design and on-engine controls, and other combustion optimization techniques employed in new stationary SI lean burn engines. As discussed previously, EPA considered the use of SCR, but rejected the technology as BDT based on several factors. Emission levels from SI lean burn engines are comparable to controlled levels from rich burn engines and engine-out emissions from SI lean burn engines are at already low levels. New stationary natural gas engines greater than or equal to 500 HP and lean burn LPG engines greater than or equal to 500 HP must comply with two stages of limits. The first stage, effective for engines manufactured after July 1, 2007, requires these engines to comply with a NO_X limit of 2.0 g/HP-hr, a CO limit of 4.0 g/HP-hr, and a NMHC limit of 1.0 g/HP-hr. A second stage of limits, effective for engines manufactured after July 1, 2010, requires these engines to comply with a NO_X limit of 1.0 g/HP-hr, a CO limit of 2.0 g/HP-hr, and a NMHC limit of 0.7 g/HP-hr. EPA is proposing that stage 1 limits apply to engines manufactured after July 1, 2007, to provide enough lead time to make the necessary preparations and adjustment in order to meet the proposed limits. An extra 3 years is being proposed to reach compliance with stage 2 limits to account for further redesign, manufacturing and implementation issues that manufacturers and owner and operators must handle in order to meet these limits. EPA believes it is appropriate to distinguish between less than 500 HP engines and greater than or equal to 500 HP engines with respect to effective dates of stage 1 and stage 2 limits. In order to spread out resources and costs, EPA believes it is appropriate to provide additional time for engines less than 500 HP to meet the standards.

e. Stationary SI Landfill/Digester Gas Engines. For stationary landfill and digester gas fired engines, EPA evaluated currently available control technologies. Chemicals in landfill and digester gas fuels called siloxanes poison the catalyst in add-on control technologies such as SCR, NSCR, and oxidation catalysts, rendering them ineffective in very short periods of time. (See discussion below.) Emission standards requiring aftertreatment controls from such engines have typically not been required due to poisoning of the catalyst leading to poor reduction efficiencies and eventually destroying the add-on control device.

For this reason, EPA did not consider add-on control for landfill and digester gas applications.

The technology that is the basis for the proposed standards for landfill and digester gas engines is the level achieved by new lean burn engines. EPA has been told that lean burn engines are the preferred choice for landfill and digester gas applications because these engines have the lowest NO_X emissions without add-on control. Information EPA gathered during the proposal also shows that the majority of landfill applications use lean burn engines. There may be some rich burn engines being used in wastewater applications, and EPA is requesting comment on how common rich burn engine designs are in landfill and digester gas applications.

Test results EPA has obtained from various sanitation districts and regulatory control agencies indicate that landfill and digester gas engines are capable of meeting similar emission levels to those engines that are using natural gas fuels. However, there is a lot of variability in landfill and digester gas, and the methane content can change considerably from day to day. For these reasons, EPA is proposing emission standards that are similar to, but somewhat less stringent than, the standards for engines combusting natural gas. Lean burn engines are lower NO_X emitting units. EPA wishes to promote cleaner technology through proposing emission standards based on low NO_X design.

For stationary landfill and digester gas fired engines, EPA is proposing separate effective dates based on the size of the engine. In order to prepare the market for regulations applicable to these engines, EPA is proposing stage 1 limits for landfill and digester gas engines less than 500 HP that are manufactured after January 1, 2008. Stage 2 limits are required for landfill and digester gas engines less than 500 HP manufactured after January 1, 2011. Again, EPA believes it must provide adequate time between stages 1 and 2 in order for the market to make the necessary adjustments to meet stage 2 standards. EPA is proposing that landfill and digester gas engines greater than or equal to 500 HP meet stage 1 limits if they are manufactured after July 1, 2007, and stage 2 limits after July 1, 2010.

All landfill and digester gas engines are required to meet a NO_X limit of 3.0 g/HP-hr for stage 1 and a NO_X limit of 2.0 g/HP-hr for stage 2. The stage 2 CO and NMHC limits for these engines are not more stringent than stage 1, but remain the same for both stages at 5.0 and 1.0 g/HP-hr for CO and NMHC, respectively. EPA believes that trying to control the CO in these engines beyond 5.0 g/HP-hr may cause instability and could affect the ability of the engine to reduce NO_X levels; therefore, the same CO limit is being proposed for both stages. Emissions of NMHC are similar to natural gas fueled engines, but in order to provide landfill and digester gas engines with some flexibility to account for variability in the fuel, which can be beyond the control of the operator, EPA is proposing a NMHC limit that remains the same between stage 1 and stage 2 and is not proposing a more stringent limit for NMHC for the second stage.

f. Stationary Emergency SI Engines. As with landfill and digester gas fired applications, add-on controls have typically not been required on stationary emergency engines. Stationary engines used for emergency purposes are operated infrequently, and aftertreatment has often been avoided because of factors such as high costs per ton of pollutant removed due to short periods of operation. EPA's recently proposed regulations for stationary CI engines that required only in-engine controls for emergency engines, and did not require stringent standards based on add-on controls for stationary CI engines used for emergency purposes. Similarly, the RICE NESHAP promulgated in 2004 (69 FR 33474) did not require emergency engines to meet emission control requirements.

Engine manufacturers expressed during the proposal process that emergency SI engines should be exempt from emission standards, citing similar reasons to those provided above. However, we do not agree that emergency engines should be exempt from the standards.

Therefore, we have established that the technology that is the basis for the standards for stationary emergency engines is the level achieved by new lean burn engines. Lean burn engines are available in the power ranges that include emergency engines. EPA expects that the emission standards for emergency engines will be met with lean burn engines. Lean burn engines are available and represent the cleanest technology available without the use of exhaust aftertreatment.

EPA is providing stationary emergency engines significant lead-time to prepare to meet the proposed standards for emergency engines. This is particularly appropriate because emergency engines have generally not previously been subject to emission standards and therefore have not necessarily been optimized for emissions performance.

EPA is proposing a single stage of emission standards for emergency engines beginning in January 1, 2009. Stationary SI emergency engines manufactured after this date must meet a NO_X limit of 2.0 g/HP-hr, a CO limit of 4.0 g/HP-hr, and a NMHC limit of 1.0 g/HP-hr. As previously discussed in this preamble, stationary SI lean burn engines emit low levels of NO_X, in the range of 1.0 to 2.0 g/HP-hr, which means the limit being proposed for NO_X is achievable. Similar conclusions can be made regarding CO and NMHC as well.

g. Modified and Reconstructed Stationary SI Engines. EPA is proposing that owners and operators of stationary SI natural gas and lean burn LPG engines that are modified or reconstructed and become subject to this proposed rule limit their exhaust emissions of NO_X to 3.0 g/HP-hr, emissions of CO to 4.0 g/HP-hr, and emissions of NMHC to 1.0 g/HP-hr. These emission standards are consistent with the proposed Stage 1 emission standards for new natural gas and lean burn LPG engines, except that a less stringent NO_X emission standard is being proposed for these engines.

There are technical difficulties in reaching a NO_X level of 2.0 g/HP-hr for modified and reconstructed engines that were not originally built to meet a 2.0 g/HP-hr standard, and such a level, even where technically feasible, would in many cases require extensive work. In addition, lowering emissions of NO_X down to 2.0 g/HP-hr, even where possible, would often be very costly. EPA discussed this issue in one of the final rules associated with the NO_X State Implementation Plan call (69 FR 21604, 21617–21621). Therefore, EPA believes it is more appropriate to propose to require that modified and reconstructed engines manufactured prior to the dates when the 2.0 g/HP-hr standard takes effect must meet a NO_X emission standard of 3.0 g/HP-hr. This level can be achieved with retrofit technology without extensive hardware replacements and can be achieved without unreasonable costs.

2. NESHAP

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from new and existing sources in regulated source categories. The CAA requires the NESHAP for major sources to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the

CAA. In essence, the MACT floor ensures that the standards are set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better controlled and lower emitting sources in each source category or subcategory.

For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources in the category or subcategory (or the best performing 5 sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

Section 112 of the CAA allows EPA to establish subcategories among a group of sources, based on criteria that differentiate such sources. The subcategories that have been developed for stationary RICE were previously listed and are necessary in order to capture the distinct differences, which could affect the emissions of HAP from these engines. The complete rationale explaining the development of these subcategories is provided in the memorandum titled Subcategorization of Stationary Reciprocating Internal Combustion Engines 500 HP available from the docket.

a. Engines ≤500 HP at Major Sources. For the MACT floor determination, EPA s Office of Air Quality Planning and Standards RICE Population Database (hereafter referred to as the ''Population Database'') was consulted. The Population Database, which was developed for the stationary RICE NESHAP for engines greater than 500 HP at major sources, represents the best information available to EPA.

Information in the Population Database was obtained from several sources and is further described in the notice of proposed rulemaking for the RICE NESHAP (67 FR 77830). EPA queried the Population Database to determine how many stationary RICE less than or equal to 500 HP have catalyst type controls. According to the Population Database, neither engines less than 50 HP, landfill/digester gas fired engines, CI emergency engines, CI non-emergency engines, SI emergency engines, nor non-emergency 2SLB engines are equipped with catalyst type controls. The Population Database indicates that 32 (3.7 percent) out of 861 non-emergency use 4SLB engines are equipped with catalyst type controls. Out of a total of 3,533 non-emergency 4SRB engines 50 to 500 HP, 197 are using catalyst type controls (5.6 percent). The percentage for 4SRB engines may or may not be representative of current conditions, and EPA requests comments on this issue. For further information on EPA's analysis on the Population Database, refer to the docket for this proposed rule.

MACT Floor for Existing Sources

The MACT floor for existing stationary RICE must be no less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources. According to information in the Population Database, there are no existing engines less than 50 HP, landfill/digester gas fired engines, CI emergency engines, CI non-emergency engines, SI emergency engines, or non-emergency 2SLB engines that use catalyst type controls. Therefore, the MACT floor for these subcategories is no further emissions reductions.

For existing non-emergency 4SLB engines between 50 and 500 HP, there are insufficient numbers of engines using add-on controls that may reduce HAP to support basing the MACT floor on the use of add-on controls. The percentage (3.7) is below the criteria for a MACT floor that would require emissions reductions for existing stationary 4SLB engines. Therefore, the MACT floor for existing non-emergency use stationary 4SLB engines 50 to 500 HP is no further emissions reductions.

The percentage for existing non-emergency 4SRB engines is also below the criteria for a MACT floor that would require emissions reductions for existing 4SRB engines. Therefore, the MACT floor for existing non-emergency use stationary 4SRB engines 50 to 500 HP is no further emissions reductions.

MACT for Existing Sources

As stated, for existing sources, the MACT floor for each of the subcategories is no emission reduction, and the MACT standard must be no less stringent than the MACT floor.

EPA considered one regulatory option more stringent than the MACT floor for existing 2SLB and existing 4SLB engines, i.e., requiring a specific HAP reduction through the use of an oxidation catalyst. Oxidation catalysts provide significant reductions of HAP emissions, as well as considerable reductions of CO. Catalyst cost information was obtained from vendors of catalytic control equipment and annual costs were derived from the data. Estimates of cost per ton of applying oxidation catalyst to various size engines were developed. The cost of oxidation catalysts was determined to outweigh the potential HAP emission reduction benefits for these subcategories. Therefore, the beyond-the-floor option was determined as inappropriate for these subcategories. Non-air quality health, environmental impacts and energy effects were also not significant factors. EPA is not aware of any other options which could serve as the basis for MACT to reduce HAP emissions from existing 2SLB and existing 4SLB engines. Therefore, MACT is equal to the MACT floor for these engines. For specific details on this analysis, refer to memorandum entitled ''Regulatory Alternatives and MACT for Stationary Reciprocating Internal Combustion Engines ≤500 HP at Major Sources,'' available from the docket for this proposed rule.

EPA considered one regulatory option more stringent than the MACT floor for existing 4SRB engines, i.e., requiring a specific HAP reduction through the use of NSCR.

An NSCR, or three-way catalyst, is a catalytic post-combustion control device that oxidizes HAP emissions, and also reduces criteria pollutants such as NO_X and CO. To operate effectively, NSCR requires stoichiometric conditions to enhance both oxidation and reduction reactions in the exhaust stream. Removal efficiencies for NSCR were previously discussed in this preamble. Again, cost information was obtained from catalyst vendors and annual NSCR costs were estimated based on these data. The costs per ton of pollutant removed by applying NSCR to various size 4SRB engines were calculated, and are documented in information included in the docket. Based on the costs per ton of HAP removed from existing 4SRB engines, it was determined that requiring NSCR on existing engines would not be appropriate and, therefore, the MACT for existing 4SRB engines is the MACT floor, i.e., no emission reduction. No other technology was identified as appropriate for reducing HAP from 4SRB engines.

Cost per ton estimates are presented in the memorandum entitled ''Cost per Ton of HAP Reduced for Stationary RICE,'' included in the docket. EPA's analysis of regulatory alternatives

beyond-the-floor is presented in the memorandum entitled ''Regulatory Alternatives and MACT for Stationary Reciprocating Internal Combustion Engines 500 Horsepower at Major Sources.''

EPA considered one regulatory option more stringent than the MACT floor for existing CI engines, which is the use of CDPF. A description of the technology and potential emission reductions were previously discussed in this preamble. Using available information, the cost for applying CDPF to existing CI engines was estimated. Based on the estimated cost per ton of HAP removed, EPA determined that requiring the use of CDPF would be too high for existing CI engines. Therefore, the MACT for existing CI engines is the MACT floor, i.e., no emission reduction.

The MACT floor for existing digester and landfill gas stationary engines is no emission reduction. The use of oxidation catalysts to reduce HAP emissions from this subcategory of RICE was found to be technically infeasible. This is due to the fact that digester gases and landfill gases contain a family of silicon-based compounds called siloxanes. Combustion of siloxanes can foul post-combustion catalysts, rendering them inoperable within a short period of time. Because of these technical issues associated with applying oxidation catalyst control, there are no viable beyond-the-floor regulatory options for these stationary RICE. Therefore, no emission reduction is MACT for existing digester and landfill gas stationary RICE.

Emission control technologies which reduce HAP emissions from stationary RICE have not been applied to stationary RICE which operate exclusively as emergency units. Thus, the MACT floor is no emission reduction. In considering the application of HAP emission control technologies to stationary RICE which operate exclusively as emergency units, there are a number of concerns regarding the technical feasibility, primarily in the areas of the long term durability and effectiveness of emission control. Whether such concerns are warranted or not, however, emission control is not considered cost effective because of the very small reductions in HAP emissions which might be achieved through the use of such technologies. In addition, non-air quality health, environmental impacts and energy effects were not significant factors. As a result, MACT for existing stationary RICE which operate exclusively as emergency engines is no emission reduction.

MACT Floor for New Sources

The MACT floor for new stationary RICE must be no less stringent than the emission control achieved in practice by the best controlled similar source. Since the Population Database indicates that there are no existing engines less than 50 HP, landfill/digester gas fired engines, CI emergency engines, CI non-emergency engines, SI emergency engines, or non-emergency 2SLB engines that are using catalyst type controls, the MACT floor for these new stationary RICE is no further emissions reductions.

As discussed, EPA established a subcategory for non-emergency 4SLB engines between 50 and 500 HP. However, based on information received by EPA, there are few, if any, stationary 4SLB engines less than 250 HP. Information regarding the smallest 4SLB engines produced is available from the docket. The additional cost and complexity of components associated with lean burn engine design is not cost effective for smaller engines (less than 400 HP), according to industry.

Stationary 4SLB engines greater than or equal to 250 HP tend to be similar to larger engines, i.e., those that are greater than 500 HP, and on a mass basis, engines greater than or equal to 250 HP emit more than smaller engines. In addition, engines of such size have traditionally been treated by States as larger engines, rather than smaller engines, and stationary 4SLB SI engines below 250 HP have generally been regulated as smaller engines. In some cases, engines greater than 250 HP may be required to meet more stringent emission standards than smaller engines. In addition, the type of add-controls that can be applied to 4SLB engines greater than or equal to 250 HP are the same as those that can be applied to larger engines, i.e., those greater than 500 HP, and those engines are capable of achieving very similar emission reductions as larger engines. Further, larger engines are typically employed in different applications than smaller engines are and may be more likely to be used in electric power generation and gas transmission and processing. In addition, smaller engines may tend to be used more by small businesses or for agricultural purposes and may resemble nonroad engines more than those greater than or equal to 250 HP, which are more similar to traditional stationary engines. For these reasons, EPA believes that non-emergency 4SLB engines greater than or equal to 250 HP more closely resemble larger engines and should be treated in a similar manner as the engines greater than 500 HP were treated.

The Population Database indicates that there are non-emergency 4SLB engines in the size range of 250 to 500 HP employing catalyst type controls, and according to the Population Database, the smallest 4SLB engine equipped with catalyst control is 270 HP. However, EPA received additional information indicating that there is a 260 HP engine operating with oxidation catalyst control and is, therefore, the smallest existing 4SLB engine of which EPA is aware that is equipped with add-on control.

EPA believes it is unreasonable to require new 4SLB engines smaller than 250 HP to meet emission standards based on add-on control. The cost per ton for new 4SLB engines between 250 and 500 HP located at major sources is reasonable. Looking at the cost effectiveness for engines smaller than 250 HP, the cost per ton of HAP removed rapidly increases with decreasing size. EPA believes an appropriate cutoff for requiring emission standards based on add-on controls is 250 HP. This conclusion is consistent with other findings, including an analysis of the Population Database of the smallest engine with catalyst control and information from other sources. This conclusion is also consistent with the MACT floor decision for new 4SLB engines greater than 500 HP located at major sources. For these reasons, the MACT floor for new 4SLB engines between 250 and 500 HP located at major sources is the level of control achieved by application of oxidation catalyst controls. The MACT floor for new 4SLB engines between 50 and 250 HP is no further HAP emission reduction.

We request comment on our proposed approach for MACT requirements for new 4SLB engines (250–500 HP). EPA's Population Database indicates that oxidation catalysts are used in some of these engines, and this technology forms the basis of the proposed standards. It is likely that these oxidation catalysts are used to meet State requirements developed as part of EPA programs such as New Source Review (NSR) and Prevention of Significant Deterioration (PSD), which focus on the control of criteria pollutants, rather than HAP. However, oxidation catalysts installed to control CO and NMHC can also reduce HAP emissions. We request comment on EPA's determination that oxidation catalysts should be the basis of the MACT floor for new 4SLB engines in the size range of 250 to 500 HP.

The Population Database indicates that there are non-emergency 4SRB

engines 50 to 500 HP operating with catalyst type controls, and, therefore, the MACT floor for new non-emergency 4SRB engines between 50 and 500 HP is the level achieved by the use of NSCR.

MACT for New Sources

For 2SLB, there are no engines in the Population Database that are using catalyst type controls. Therefore, the MACT floor for new stationary 2SLB is no further emissions reductions. In addition, the cost effectiveness of adding an oxidation catalyst to a new 2SLB engine was not determined to be economically feasible, and MACT for new 2SLB engines is, therefore, no emission reduction. This determination is different than MACT for engines greater than 500 HP located at major sources because for those engines, the Population Database indicates that there are existing 2SLB engines greater than 500 HP operating with catalytic controls. As stated, no existing 2SLB engines less than or equal to 500 HP are using catalytic controls, according to the Population Database. However, we are proposing to require these engines to meet NMHC emission standards that are based on the use of on-engine controls in order to reduce levels of HAP.

For engines less than 50 HP, EPA evaluated beyond-the-floor options for engines less than or equal to 19 KW (25 HP) and engines above 19 KW (25 HP) separately. Stationary SI engines less than or equal to 19 KW (25 HP) are required under the proposed SI NSPS to meet the certification standards for new nonroad SI engines in 40 CFR part 90 for nonhandheld engines. The technologies that are the basis for those standards rely on engine-based controls. Under the SI NSPS, those controls were determined to be BDT for new stationary SI engines less than or equal to 19 KW (25 HP). The beyond-the-floor analysis for stationary SI engines less than or equal to 19 KW (25 HP) considered the use of those technologies, and EPA believes it is appropriate to set MACT for these engines at the level of control required by the SI NSPS.

The emission standards for nonhandheld engines include limits for HC + NO_X (or NMHC + NO_X standards for natural gas fueled engines, at the option of the manufacturer) and CO. EPA has determined that NMHC can be used as a surrogate for HAP and, therefore, believes it is appropriate to require a standard based on NMHC as opposed to a HAP standard. For more information on EPA's decision to use NMHC as a surrogate for HAP, refer to the memorandum entitled ''Non-methane Hydrocarbons as a Surrogate for Hazardous Air Pollutants for Stationary Internal Combustion Engines,'' available from the docket.

For new stationary SI engines between 19 and 37 KW (25 and 50 HP), EPA evaluated beyond-the-floor options based on the requirements for new stationary SI engines under the SI NSPS. Under the SI NSPS, engines greater than 19 KW (25 HP) that use gasoline or that are rich burn engines greater than 19 KW (25 HP) that use LPG, are required to be certified to the emission standards in 40 CFR part 1048. The technologies that are the basis for those standards are three-way catalyst systems (NSCR) with electronic, closed-loop fuel systems. These technologies were determined to be BDT for new stationary SI engines greater than 19 KW (25 HP) that use gasoline and rich burn engines greater than 19 KW (25 HP) that use LPG under the SI NSPS. These are the same engines that would be covered by the NESHAP, and, therefore, EPA believes it is appropriate to go beyond-the-floor for these engines and require that owners and operators of these engines meet the standards proposed in the SI NSPS.

The nonroad standards for SI engines greater than 19 KW (25 HP) include HC + NO_X standards and standards for CO. The engine has to meet the numerical emission standard based on NMHC emissions if the engine is fueled by natural gas. As discussed, EPA has determined that NMHC is an appropriate surrogate for HAP, and EPA believes it is appropriate to require the nonroad SI engine standards in 40 CFR part 1048 for these engines. In addition, these engines are the same engines that are covered by the SI NSPS and would be subject to certification requirements of 40 CFR part 1048 even in the absence of the NESHAP.

Finally, EPA would like to ensure consistency and avoid conflicting requirements between regulations affecting the same or similar source categories. Therefore, EPA believes it is appropriate to set MACT for these engines at the level of control required by the SI NSPS.

For stationary SI engines between 19 and 37 KW (25 and 50 HP) that use natural gas or are lean burn LPG engines, EPA described that requiring engine certification would be inappropriate for various reasons. For the SI NSPS, EPA determined that it was more appropriate to rely on a voluntary engine certification program combined with requirements for owners and operators. EPA considers this approach as a reasonable beyond-the-floor option for new stationary SI engines between 19 and 37 KW (25 and 50 HP) located at major sources. Again, the same engines would be covered under the SI NSPS, and would, under that rule, be required to meet NO_X, CO, and NMHC emission standards. Therefore, EPA considers the NMHC emission standards from the SI NSPS as the most appropriate beyond-the-floor option.

It was previously discussed that it is appropriate to use NMHC as a surrogate for HAP. The SI NSPS propose different NMHC emission standards and timing based on the type and size of the engine. The SI NSPS propose a NMHC limit of 0.7 or 1.0 g/HP-hr, which EPA believes is reasonable to require for engines under the NESHAP as well. For stationary SI engines between 19 and 37 KW (25 and 50 HP) that use natural gas or are lean burn engines using LPG, MACT is determined to be the level required for these engines under the SI NSPS, i.e., an emission standard of 0.7 or 1.0 g/HP-hr for NMHC. The NMHC limit of 1.0 g/HP-hr is required for natural gas fired engines less than 500 HP and lean burn engines less than 500 HP using LPG that are manufactured after January 1, 2008. The limit of 0.7 g/HP-hr for NMHC is required for natural gas fired engines less than 500 HP and lean burn engines less than 500 HP that use LPG that are manufactured after January 1, 2011. EPA believes that the implementation dates are the most stringent that can be justified that provide engine manufacturers with sufficient time to prepare their products for compliance.

According to the Population Database, there are existing 4SLB stationary engines currently operating with oxidation catalyst systems. No technology achieving greater emission reductions was found. We previously discussed the decision to set the MACT floor for new 4SLB engines between 250 and 500 HP located at major sources based on the use of oxidation catalyst. For new 4SLB engines between 50 and 250 HP, the MACT floor is no emission reduction. We also discussed in an earlier section that we believe non-emergency 4SLB engines between 250 and 500 HP are more similar to large engines, i.e., those greater than 500 HP. The formaldehyde level required by the existing 40 CFR part 63, subpart ZZZZ, for new 4SLB engines greater than 500 HP located at major sources is based on using oxidation catalyst. A formaldehyde concentration level of 14 ppmvd at 15 percent O_2 was promulgated for those engines. As an alternative, a 93 percent reduction of CO was provided.

EPA believes these levels are reasonable for new 4SLB engines

between 250 and 500 HP located at major sources as well. EPA expects the capabilities of the oxidation catalyst to be the same for engines between 250 and 500 HP as they are for engines greater than 500 HP. For these reasons, MACT is the level of control achieved by using oxidation catalyst, i.e., either a 93 percent reduction of CO or a formaldehyde outlet concentration limit of 14 ppmvd at 15 percent O_2.

For new 4SLB engines between 50 and 250 HP located at major sources, the proposed MACT standard is equal to the NMHC standard required under the proposed SI NSPS.

The MACT standard for new 4SRB stationary RICE must be at least as stringent as the MACT floor for existing 4SRB stationary RICE. Regulatory options more stringent than the MACT floor include requiring the use of NSCR; no other technology achieving greater emissions reductions was found.

As discussed, EPA generally believes it is appropriate to base the MACT standards for new stationary SI engines on the standards being proposed in the stationary SI NSPS (except for new and reconstructed 4SLB engines between 250 and 500 HP located at major sources). This conclusion affects new stationary rich burn engines. EPA discussed selecting NSCR as BDT for most new stationary rich burn engines earlier in this preamble. We discussed the appropriateness of following the SI NSPS for new SI engines less than or equal to 19 KW (25 HP) and new SI engines greater than 19 KW (25 HP) that use gasoline or that are rich burn engines greater than 19 KW (25 HP) that use LPG. For the reasons previously discussed, MACT for new 4SRB engines between 25 and 500 HP located at major sources are the NMHC standards that are required in the SI NSPS. EPA also discussed the appropriateness of requiring exhaust-based emission standards of 1.0 and 0.7 g/HP–hr of NMHC and has explained the reason for setting a NMHC standard and not a HAP standard. For rich burn engines greater than 19 KW (25 HP) that do not use LPG, it was determined that a mandatory certification program would not be appropriate due to fuel quality and other issues.

Therefore, an emission standard is being proposed, and is determined to be MACT for these engines. Owners and operators can either purchase an engine that is certified to this standard, or alternatively, conduct emissions testing to demonstrate compliance with the NMHC emission limit, if their engine is not certified by a manufacturer. The MACT for new 4SRB engines is the level of control required by the SI NSPS, i.e., a NMHC standard of 1.0 or 0.7 g/HP–hr, as applicable.

For CI non-emergency engines, there are no engines in the Population Database that are using catalyst type controls. Therefore, the MACT floor for new stationary non-emergency CI RICE is no further emissions reductions.

Catalyzed diesel particulate filters have been proven effective in reducing emissions of HAP and are the basis for the majority of Tier 4 emission standards for new nonroad and stationary diesel engines that will go into effect at the beginning of the next decade. The technology was also relied upon for the standards issued for stationary CI engines in California. No other technology was found to be more effective in reducing HAP from CI engines than CDPF, and, therefore, the MACT for new stationary CI non-emergency engines is the level of control achieved through application of CDPF, with an appropriate period of lead time equal to that provided for nonroad CI engines.

New stationary CI engines less than or equal to 500 HP located at major sources will be affected by the upcoming NSPS for stationary CI engines (40 CFR part 60, subpart IIII). The CI NSPS rely in large part on certification of engines by the engine manufacturers following well-established procedures developed under the nonroad CI engine program. The CI NSPS require minimal effort from engine owners and operators, and places the burden and responsibility mainly on the engine manufacturer during the useful life of the engine.

Cost effectiveness analysis conducted for the CI NSPS show that the costs of applying CDPF to new stationary CI engines are reasonable. Under the CI NSPS, most owners and operators will demonstrate compliance with 40 CFR part 60, subpart IIII by purchasing a certified engine. The only ongoing compliance requirement for owners and operators is to operate and maintain the engine (and control device) according to the manufacturer's written specifications. It is assumed that the engine will remain in compliance with the emission standards for the useful life of the engine, if the engine is operated and maintained properly.

For new stationary CI engines less than or equal to 500 HP located at major sources affected by 40 CFR part 63, subpart ZZZZ, proposed in this action, EPA believes it would be appropriate to require owners and operators to comply with the NMHC and PM requirements in 40 CFR part 60, subpart IIII. Although MACT for these sources is the level of control achieved by CDPF, with appropriate lead time for application of this technology for these engines, owners and operators will not be the party installing CDPF on their engines; the engine manufacturers will be responsible for this.

The requirements of the CI NSPS include emission standards that will be phased in depending on the model year. Requirements include emission standards for NO_X, CO, PM, HC, and NMHC with increasing stringency. The standards regulating emissions of NMHC and PM are particularly relevant for regulating HAP emissions. The final level of emission standards (Tier 4), rely, in most cases, at least for larger size engines, on the implementation of NO_X adsorber and, importantly for this discussion, CDPF. With the addition of CDPF controls in Tier 4 certified engines, emissions of HAP will be significantly reduced and the goal of section 112(d)(5) of the CAA will be realized by following the CI NSPS.

EPA believes it is appropriate to require that stationary CI engines meet PM and NMHC standards that apply to stationary CI engines under the CI NSPS because, while most HAP emissions from diesel engines are gaseous hydrocarbons, there are HAP that become adsorbed on the diesel particles; therefore, meeting the emission standards under the CI NSPS for HC/NMHC and PM helps ensure maximum control of HAP. For the reasons provided, EPA believes MACT for new stationary CI engines is appropriate, and is the level of control required by the CI NSPS achieved through application of CDPF.

There are no landfill or digester gas fired stationary RICE in the Population Database using catalyst type controls, and therefore the MACT floor for new stationary landfill and digester gas engines is no further emissions reductions. The applicability of HAP emission control technology, such as the use of an oxidation catalyst system for example, was considered for this subcategory of stationary RICE for beyond-the-floor controls. However, digester gases and landfill gases, as discussed, may contain compounds that foul catalyst elements reducing the catalyst efficiency very quickly. Pretreatment systems to remove siloxanes from the gases prior to combustion were considered; however, there are no pretreatment systems found to be in use and the long-term effectiveness is unknown. Therefore, there is no add-on emission control technology that could be applied to the subcategory of stationary RICE to reduce HAP emissions. However, we are requiring these engines to meet a standard equal to the use of on-engine

controls to reduce HAP emissions, i.e., through a NMHC emission standard.

For new emergency engines, aftertreatment-based beyond-the-floor options are not considered cost effective due to the very small reductions in HAP emissions that might be achieved through the use of catalyst-based technologies on new emergency stationary engines. In addition, there are concerns regarding the technical feasibility, long term durability, and effectiveness of emission control. Non-air quality health, environmental impacts and energy effects were not significant factors. Consequently, there is no HAP emission reduction that could be identified as MACT for new emergency use SI stationary RICE. Therefore, MACT is equal to the amount of engine-based control deemed BDT under the NSPS for this subcategory of SI engines. New and reconstructed SI emergency engines are required to meet the NMHC standard that is being proposed under the SI NSPS, i.e., 1.0 g/HP–hr, starting with engines manufactured after January 1, 2009.

Add-on controls have been determined to be inappropriate for application to emergency engines; however, EPA believes that requiring on-engine controls to new emergency CI engines would be appropriate. The recently proposed NSPS for stationary CI engines set standards of performance for emergency engines based on engine-based, as opposed to aftertreatment-based, technologies. These standards equate to the Tier 2 and Tier 3 emission standards for nonroad CI engines and are based on technologies such as combustion optimization and advanced fuel injection controls. EPA believed that these technologies were appropriate for emergency engines covered by the CI NSPS. EPA also believes that it is appropriate to require new stationary CI emergency engines less than or equal to 500 HP located at major sources to meet similar standards as emergency engines are required to under the CI NSPS. EPA does not see any reason why new emergency CI engines should be treated differently under the NESHAP. For the reasons provided, MACT for new stationary CI emergency engines less than or equal to 500 HP located at major sources is the level of control achieved by on-engine controls and will be required to meet the standards for emergency engines under the CI NSPS.

b. Engines at Area Sources. Under section 112(k) of the CAA, EPA developed a national strategy to address air toxic pollution from area sources. The strategy is part of EPA's overall national effort to reduce toxics, but focuses on the particular needs of urban areas. Section 112(k) of the CAA requires EPA to list area source categories and to ensure 90 percent of the emissions from area sources are subject to standards pursuant to section 112(d) of the CAA. Under section 112(k), the CAA specifically mandated that EPA develop a strategy to address public health risks posed by air toxics from area sources in urban areas. Section 112(k) of the CAA also mandates that the strategy achieve a 75 percent reduction in cancer incidence attributable to HAP emitted by stationary sources. As mentioned, stationary RICE are listed as a source category under the Urban Air Toxics Strategy developed under the authority of sections 112(k) and 112(c)(3) of the CAA. These area sources are subject to standards under section 112(d) of the CAA.

Section 112(d)(5) of the CAA indicates that EPA may elect to promulgate standards or requirements to area sources ''which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.'' For determining emission limitations, GACT standards can be more flexible requirements than MACT standards. For example, GACT standards do not have a requirement to set a control baseline or ''floor'' that is equal to the average emission levels achieved by the best performing 12 percent of a type of facility, for existing sources, or the emission control achieved in practice by the best controlled similar source, for new sources. Therefore, EPA is permitted to consider costs and other factors during each phase of the GACT analysis. Control technology options available to be applied to stationary engines located at area sources are the same as those discussed for engines located at major sources.

The standards being proposed in this action are applicable to stationary RICE located at area sources of HAP emissions. EPA has chosen to propose national standards, which not only focus on urban areas, but address emissions from area sources in all areas (urban and rural).

For stationary RICE, it would not be practical or appropriate to limit the applicability to urban areas and EPA has determined that national standards are appropriate. Stationary RICE are located in both urban and rural areas. In fact, there are some rural areas with high concentrations of stationary RICE. Stationary RICE are employed in various industries used for both the private and public sector for a wide range of applications such as generator sets, irrigation sets, air and gas compressors, pumps, welders, and hydro power units. Stationary RICE may be used by private entities for agricultural purposes and be located in a rural area, or it may be used as a standby generator for an office building located in an urban area. Other stationary RICE may operate at large sources for electric power generation, transmission, or distribution purposes.

EPA determined that stationary RICE are located all over the U.S., and EPA cannot say that these sources are more prevalent in certain areas of the country. Therefore, for the source category of stationary RICE, EPA is proposing national requirements without a distinction between urban and non-urban areas.

For existing engines, GACT for engines located at area sources is equal to MACT for engines less than or equal to 500 HP located at major sources. For new sources, we are proposing the same requirements for GACT for engines located at area sources as we are for MACT for engines less than or equal to 500 HP located at major sources, except for new and reconstructed non-emergency 4SLB engines between 250 and 500 HP located at area sources. As discussed, new and reconstructed non-emergency 4SLB engines between 250 and 500 HP located at major sources are required to meet the standards that were finalized for new 4SLB engines greater than 500 HP located at major sources (69 FR 33474). New 4SLB engines at area sources will be required to meet the NMHC emission standards being proposed for SI engines under the NSPS.

C. How did EPA determine the compliance requirements?

The following sections describe how EPA determined the compliance requirements for engines subject to the SI NSPS and NESHAP.

1. SI NSPS

Unlike the NSPS for stationary CI engines, the compliance requirements for the SI NSPS contemplate that many new SI engines might not be certified by the manufacturer. EPA only requires a subset of stationary engines to be certified, and otherwise provides only for optional certification by engine manufacturers. The engines that are not required to be certified are those SI engines that are greater than 19 KW (25 HP) that are not gasoline engines and that are not rich burn engines that use LPG. EPA does not believe it is feasible to require these engines to be certified due to fuel quality issues and other factors. Not only do gaseous fuel quality and properties vary significantly across

the country, gaseous-fueled stationary engines also have to be set up at each individual site to account for site-specific conditions. Due to varying gaseous fuel and conditions based on the physical location of the engine, manufacturers would not necessarily be able to define a set of operating conditions during the engine certification process that would guarantee a certain level of emissions from the engine. Instead, the engine would have to be adjusted in the field in order to meet the applicable standards. Lean burn engines that are using LPG are included in the voluntary certification program instead of the mandatory certification program because these engines are similar to gaseous-fueled stationary engines.

However, EPA does not preclude the possibility that some manufacturers may be able to certify some or all of their stationary gaseous-fueled, or lean burn LPG fueled, engines. EPA believes that a certification program that is somewhat different from the nonroad CI engine certification program, which allows for a wider range of fuel quality and for adjustment of the engine in the field according to the manufacturer's instructions, is feasible. EPA has written this proposed rule to allow engine manufacturers to voluntarily certify their stationary SI engines greater than 19 KW (25 HP) that use fuels such as natural gas.

Should the engine manufacturer determine that it is feasible to certify their engine families, such certification would substantially reduce the burden for owners and operators purchasing those engines. These engine owners and operators would not be required to conduct performance testing should they purchase a certified engine.

There are minimum specific compliance requirements for owners and operators subject to the SI NSPS that purchase certified engines. For certified engines, the testing performed by engine manufacturers during the certification process serves to demonstrate compliance with the emission limitations on an initial and ongoing basis until the end of the engine's useful life. The certification program reduces the burden on individual engine owners and operators and eliminates the requirement to do performance testing. In addition to engine certification, owners and operators of all engines subject to the proposed standards are required to operate and maintain their engine and control device (if any) according to the manufacturer's written instructions. This requirement is consistent with the CI NSPS and is a reasonable and non-burdensome requirement. EPA believes certification is the best option for ensuring initial and continuous compliance.

If the manufacturer puts restrictions on the type of fuel to be used in an engine, or if the manufacturer requires specific configuration instructions to the owner or operator for installing the engine to ensure conformance to the standards as certified, then the owner or operator must follow those instructions and limitations in order to avoid the requirement to do its own testing or otherwise be in noncompliance with the regulations.

For owners and operators of uncertified engines, EPA believes that performance testing is necessary to ensure compliance with the emission limitations. EPA believes it is appropriate to require an initial performance test for uncertified engines. Since these engines have not gone through the certification process where the engine has been rigorously tested to meet the required emission standards, on-site testing is the best way to ensure that the emission limitations have been met. Also, EPA is requiring that uncertified engines greater than 500 HP be tested on a regular basis every 3 years, or 8,760 hours of operation, whichever comes first. EPA believes such a requirement is appropriate for these size engines, but does not believe that further testing is necessary for smaller engines, i.e., those less than or equal to 500 HP, unless these engines undergo major repair or maintenance or are rebuilt.

EPA believes that certification is appropriate for stationary engines that are similar to nonroad engines or that are used for both nonroad and stationary applications. Therefore, EPA is requiring manufacturers of all new stationary engines 19 KW (25 HP) and below and all new gasoline engines and rich burn LPG engines to certify these engines using the provisions in 40 CFR parts 90 and 1048, as appropriate.

In general, nonroad certification provisions specify that engine manufacturers must establish appropriate engine families and certify each engine family to the applicable emission standards using the fuel specifications required in those parts (40 CFR parts 90 and 1048). Manufacturers that voluntarily certify new stationary engines to the standards in this proposed rule are subject to similar requirements, with certain differences. Nonroad standards include evaporative and field testing emission standards, but those standards would not apply to manufacturers who participate in voluntary certification of stationary SI engines. The concept of useful life is also part of the nonroad engine certification program and is being proposed for voluntary certification, but different useful life values apply. Fuels used in engines potentially participating in the voluntary certification program, specifically natural gas and LPG, may have different compositions depending on the area the fuel is used. Manufacturers who choose to certify engines under EPA's proposed voluntary certification program must certify their natural gas engines using pipeline-quality natural gas meeting EPA's specifications defined in this proposed rule. The same is true for manufacturers certifying lean burn LPG engines under the proposed certification program and manufacturers must certify their engines for operation using fuel that meets the specifications in 40 CFR 1068.720.

Alternatively, manufacturers can certify their engines on fuels other than, or in addition to, pipeline-quality natural gas. If so, the manufacturer must specify the properties and composition of the other fuel and must perform certification testing on the fuel it is certifying the engine on. If an aftertreatment device is needed, manufacturers who certify engines under the voluntary certification program would be required to certify their engines with the appropriate aftertreatment equipment. Manufacturers must provide information to the owner or operator as to the necessary adjustments to be made in the field upon installation in order to ensure that the engine meets the emission standards demonstrated during factory certification. This provision would allow the owner or operator to run the engine on fuels that are within the range of properties specified by the manufacturer in the certification. The engine certification is valid, provided that the owner or operator uses the fuels specified by the engine manufacturer.

EPA is proposing to include restrictions on the import of stationary SI ICE ≤19 KW (25 HP), stationary rich burn LPG SI engines and stationary gasoline SI ICE to prevent the importation of engines that do not meet the applicable requirements of this proposed rule. This proposed rule includes a provision that prohibits importers from bringing into the U.S. stationary SI ICE ≤19 KW (25 HP), stationary rich burn LPG SI engines and gasoline SI ICE that do not meet the emission standards specified in this proposed rule after certain dates. The proposed dates for limiting the

importation of engines into the U.S. provides sufficient time to account for the time that may be required to bring an engine into the U.S., and EPA believes it is appropriate to propose importation dates that provides for such flexibility. We are limiting this restriction only to stationary SI ICE ≤19 KW (25 HP) and to stationary gasoline and rich burn LPG SI ICE because these are the only types of SI ICE that would have an emissions certification requirement. All other SI ICE would not be required to certify their emissions—unless the manufacturer chooses the option to certify—thus, the compliance burden would fall on the owner/operator of the engine.

2. NESHAP

Overall, the NESHAP compliance requirements are very similar to the compliance requirements discussed above for the SI NSPS. Again, EPA is proposing requirements that often rely on, or allow for, engine certification by manufacturers. The testing that manufacturers conduct during the certification process for such engines will ensure that the engine is in compliance throughout its useful life. EPA believes relying on engine certification is appropriate and no additional testing is being proposed for certified engines.

For those engines that will not be certified by engine manufacturers, EPA is proposing that owners and operators conduct initial performance testing to demonstrate compliance with the emission standards. Since there is no official certification testing by engine manufacturers on these engines, performance testing when the engine is installed in the field is appropriate. This is the best way to ensure that the engine meets the emission standards.

In addition to requiring initial performance testing for those engines subject to the NESHAP that are not certified, uncertified engines greater than 500 HP must conduct additional performance testing every 3 years or 8,760 hours of operation, whichever comes first. Unless engines subject to the NESHAP less than or equal to 500 HP undergo major repair or maintenance or are rebuilt, no further testing is required for these engines. EPA believes that subsequent performance testing is appropriate for engines greater than 500 HP due to their size. Many States mandate more stringent compliance requirements for large engines and the RICE NESHAP for engines greater than 500 HP located at major sources also required further performance testing following the initial compliance demonstration. Finally, EPA expects engines that are greater than 500 HP are less likely to be certified since they are not mass-produced, and it would be less cost effective for manufacturers to certify them.

All engines subject to the NESHAP are required to operate and maintain their stationary engine and control device (if any) according to the manufacturer's written instructions.

D. How did EPA determine the reporting and recordkeeping requirements?

The following sections describe how EPA determined the reporting and recordkeeping requirements for engines subject to the SI NSPS and NESHAP.

1. SI NSPS

For engines subject to the SI NSPS, EPA is proposing that owners and operators maintain records of proper maintenance. If the engine is certified, the owner or operator must keep documentation from the manufacturer that the engine is certified to meet the emission standards. EPA does not expect this to be a burdensome requirement and thinks that, in many cases, owners and operators may be documenting this information already. An initial notification is required for uncertified engines greater than 500 HP. Also, owners and operators who conduct performance testing are required to report the test results each time a performance test is conducted.

Owners and operators of emergency engines are required to keep records of their hours of operation (emergency and non-emergency). Owners and operators must install a non-resettable hour meter on their engines to record the necessary information. The owner and operators are required to record the time of operation and the reason the engine was in operation during that time. EPA believes these requirements are appropriate for emergency engines. The requirement to maintain records documenting why the engine was operating will ensure that regulatory agencies have the necessary information to determine if the engine was in compliance with the maintenance and testing hour limitation of 100 hours per year.

2. NESHAP

Similar to the SI NSPS, engines subject to the NESHAP are also required to maintain records of proper maintenance. Again, EPA does not expect this to be a burdensome requirement and thinks that, in many cases, owners and operators may be documenting this information already. If the engine is certified, the owner or operator must keep documentation from the manufacturer that the engine is certified to meet the emission standards. Further, an initial notification is required for stationary SI engines greater than 500 HP that are not certified. Also, owners and operators of engines that are not certified must conduct performance testing to demonstrate compliance with the emission standards and are required to report the test results each time a performance test is conducted.

Consistent with the SI NSPS, owners and operators of emergency engines subject to the NESHAP are also required to keep records of their hours of operation. Under the NESHAP, this requirement applies not only to SI emergency engines, but to CI emergency engines as well. Owners and operators must install a non-resettable hour meter on their engines to record the necessary information. EPA believes these requirements are appropriate for emergency engines and are consistent with what was proposed for new CI engines under the NSPS.

Owners and operators of new and reconstructed stationary RICE which fire landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis affected by 40 CFR part 63, subpart ZZZZ, must monitor and record the fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. This requirement is appropriate and consistent with fuel monitoring requirements for engines greater than 500 HP located at major sources.

E. Why Did EPA Determine to Exempt Area Sources From Title V Permit Requirements?

Section 502(a) of the CAA specifies the sources that are required to obtain operating permits under title V. These sources include (1) any affected source subject to the acid deposition provisions of title IV of the CAA, (2) any major source, (3) any source required to have a permit under parts C or D of title I of the CAA, (4) ''any other source (including an area source) subject to standards under section 111 (NSPS) or 112 (NESHAP),'' and (5) any other stationary source in a category designated by regulations promulgated by the Administrator.

Section 502(a) of the CAA also provides that the Administrator may ''promulgate regulations to exempt one or more source categories (in whole or in part) from the requirements of this subsection if the Administrator finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories, except that the Administrator may not exempt any major source from

such requirements.'' EPA has exempted many area sources subject to CAA section 111 or 112 standards from title V requirements in prior rulemakings, in particular see a recent final rule, 70 FR 75320, December 19, 2005, that provides additional background information and rationale for such exemptions for a large number of area sources subject to CAA section 112 standards.

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

First, title V permits would be unnecessarily burdensome for area sources subject to this proposed rule because title V would not result in significant improvements to compliance with the CAA section 111 and 112 standards for the area sources. (The term ''title V permits'' used here refers to permits issued under 40 CFR parts 70 or 71 by either a State or local agency or EPA.) For a great number of these area sources, these engines are the only emission source and the owner/operator (often a hospital or a school) will not be at all familiar with the requirements for permits.

To demonstrate compliance with these CAA section 111 and 112 standards, the NSPS require the owner or operator of the area source to either purchase a certified stationary SI engine or to conduct performance testing. Certification that the engine meets the emission reduction requirements of this proposed rule is done by the manufacturer of the engine, rather than the area source that owns or operates the engine. This strategy places a significant amount of responsibility for compliance with the standard on the manufacturer, compared to many other emission standards that place the compliance responsibility on the owner or operator.

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

For those engines that are not certified and located at area sources, EPA believes it would be unnecessarily burdensome to require title V permits. Many of these engines are small consumer items that are owned by sources that are not otherwise regulated. Also, title V would not result in significant improvements to compliance with the standard for these area sources because the CAA section 111 and 112 standards themselves contains adequate compliance requirements for these area sources, consistent with the CAA, without relying on title V. For example, owners and operators of engines that are not certified have to conduct performance testing to demonstrate compliance with the proposed emission standards. Notification, recordkeeping, and reporting requirements are also proposed for these sources that own and operator engines that are not certified and combined with performance testing requirements provide adequate assurance that area sources are in compliance with CAA section 111 and 112 standards.

Second, title V would impose certain burdens and costs on area sources subject to this proposed rule that EPA does not believe are justified when compared to the potential for title V permits to improve compliance with the CAA section 111 and 112 standards for such sources. This is so because EPA believes the costs and burdens of title V permits for the typical area sources subject to this proposed rule would be significant. This assessment is not based on any particular empirical data or study but on a review of the types of stand-alone area sources that would be subject to this proposed rule. (See current ICR for 40 CFR part 70, EPA ICR # 1587.06 and OMB control number 2060–0243 for EPA's best estimate of the burdens and costs of title V for sources subject to 40 CFR part 70 on a national, aggregate basis.) Also, as explained above, EPA's judgment is that requiring operating permits for these area sources would not result in significant improvements to compliance over that already required by this proposed rule. Thus, the burdens and cost of title V for these area sources would be significant, and in any case, they will be unnecessary and not justified, when compared to the low potential for title V permits to improve compliance for them, consistent with the ''unnecessarily burdensome'' criterion of section 502(a) of the CAA.

Thus, we have decided to propose to exempt area sources subject to this proposed rule from title V operating permit requirements under 40 CFR part 70 and 40 CFR part 71, and we have incorporated language in this proposed rule to specify this. Under this approach title V exemptions are allowed for an area source, provided the area source is not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for another reason, such as when the source becomes a major source.

Also note that this exemption only affects whether an area source is required to obtain an operating permit, it has no bearing on any other requirements of this proposed rule.

V. Summary of Environmental, Energy and Economic Impacts

A. What are the air quality impacts?

This proposed rule is estimated to reduce NO_X emissions from stationary SI ICE by an estimated 66,000 tons per year (tpy), CO emissions by about 38,000 tpy, NMHC emissions by about 2,000 tpy, and HAP emissions by approximately 800 tpy in the year 2015. This proposed rule is estimated to reduce NO_X emissions by 73,000 tpy, CO emissions by 41,000 tpy, NMHC emissions by 2,000 tpy, and HAP emissions by 900 tpy in the year 2020. This proposed rule is estimated to reduce NO_X emissions by 88,000 tpy, CO emissions by 48,000 tpy, NMHC emissions by 3,000 tpy, and HAP emissions by 1,000 tpy in the year 2030.

EPA estimates that a total of about 150,000 stationary SI engines will be affected by this proposed rule by the year 2015. A total of 433,000 stationary SI engines will be affected by the year 2030. An estimated 623,000 stationary CI engines will be affected by this proposed rule by the year 2015. However, stationary CI engines affected by this proposed rule would also be subject to the CI NSPS. Further information regarding the estimated reductions of this proposed rule can be found in the memorandum entitled ''Cost Impacts and Emission Reductions Associated with Proposed NSPS for Stationary SI ICE and NESHAP for Stationary RICE,'' which is available in the docket.

B. What are the cost impacts?

The total national capital cost for this proposed rule is estimated to be approximately $37 million in the year 2015, with a total national annual cost of $17 million in the year 2015. In the year 2020, the total national capital and annual costs for this proposed rule are estimated to be $40 million and $18 million, respectively. In the year 2030, the total national capital and annual costs for this proposed rule are estimated to be $47 million and $20 million, respectively.

C. What are the economic impacts?

The economic impacts of this proposed rule are estimated in terms of

changes in price and output for affected producers defined by industry and affected consumers. These price and output changes are estimated for four industries that may be affected by this proposed rule: NAICS 333912 (Pump and Compressor Manufacturing), NAICS 333911 (Pump and Pumping Equipment Manufacturing), NAICS 335312 (Motor and Generator Manufacturing), and NAICS 33399P (All other Miscellaneous General Purpose, Machinery). Prices are expected to increase by no more than 0.08 percent for output from any of the industries affected by this proposed rule. Affected output is expected to decrease by no more than 0.003 percent from any of these industries. The decrease in total surplus (consumer + producer surplus) is about $11 million, or less than 0.1 percent.

As part of the assessment of the economic impacts of this proposal, EPA has estimated the health benefits of reducing NO_X emissions as a result of this proposed rule. For the reduction of 66,000 tons of NO_X, we estimate that the human health benefits in the year 2015 will be in the range of $72 million to $765 million, or about 4 to 40 times the annual cost in that year. To get this estimate, we assumed that each ton of NO_X reduced was worth in the range of $1,100 to $11,600 in human health benefits. In developing this estimate, EPA is using the approach and methodology laid out in the document titled ''Validating Regulatory Analysis: 2005 Report to Congress by OMB.''

EPA plans to do a more extensive calculation of the benefits of this rulemaking during the development of the final rule. Executive Order 12866 and OMB Circular A–4 require the estimation of the costs, benefits and economic impacts for any significant regulatory action with an annual impact on the economy of greater than $100 million. For the final rulemaking, EPA will perform a more extensive assessment of the human health benefits and provide a more complete characterization of the uncertainty in its estimate as outlined in the OMB Circular A–4 guidance.

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

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

VI. Solicitation of Public Comments and Public Participation

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

Specifically, we request comments on the issue of measuring NMHC emissions. Hydrocarbons are a by-product of the combustion of fuel from stationary engines. Because methane is orders of magnitude less reactive in the atmosphere than other hydrocarbons, it is often excluded from emission estimates. Therefore, NMHC emission standards are sometimes used to regulate emissions of hydrocarbons from fuel combustion sources. The emissions of NMHC are the measured hydrocarbon components detected using a Flame Ionization Detector (FID), subtracting out the methane concentration. Most hydrocarbons can be measured with an FID, with the exception of oxygenated compounds. Many of these oxygenated compounds, which include formaldehyde, acetaldehyde, methanol, and acrolein, have been identified as HAP emitted in high quantities from stationary engines. Formaldehyde was found to be the most significant HAP, comprising more than 70 percent of all HAP emissions from stationary natural gas fired engines. EPA recognizes that test methods which measure NMHC commonly do not measure formaldehyde. However, EPA has found that there is a linear correlation with NMHC emissions and formaldehyde emissions, and is proposing that NMHC be used as a surrogate for formaldehyde emissions from stationary SI ICE. EPA recognizes that measuring NMHC directly does not measure HAP such as formaldehyde, and requests comments on this issue.

We also request comment on our proposed approach for emergency SI engines. The proposed standards for emergency SI engines require the same levels of emissions as the proposed Phase 1 standards for non-emergency SI natural gas engines, except that additional lead time is provided. EPA recognizes that emergency SI engines must satisfy unique demands and performance requirements. We request comment on the costs, emission reductions and technical feasibility of the standards for rich-burn and lean-burn SI emergency engines and any potential difficulties associated with the proposed standards for emergency SI engines. In addition, we are also requesting comment on our proposal to allow the use of propane for up to 100 hours per year for emergency backup purposes even if the engine is not designed to operate on propane. Industry requested that such an allowance would be appropriate to include in the rule.

In addition, we are requesting comment on the proposed emission standards for landfill and digester gas fired engines that are rich burn engines. While we recognize that there are issues related to the application of add-on controls to engines firing landfill and digester gas, we believe that the emission standards proposed can be met by lean burn engine designs. Information we have received during the proposal indicates that the majority of landfill gas applications are using lean burn engines, therefore, we do not expect any problems complying with the proposed standards as the standards can be met through on-engine controls. However, there may be a few stationary engines that are rich burn engines that may have problems complying with the proposed emission standards if they are burning landfill or digester gas. We request comments on how common rich burn engines are in such applications. We are also requesting comments on the costs, emission reductions and technical feasibility of the proposed second phase of standards for SI landfill/digester gas engines under the NSPS that would tighten the NO_X limit from 3 to 2 g/bhp-hr.

Finally, we are requesting comment on our proposed approach for addressing engines using LPG. In the proposal we are treating rich burn engines that use LPG and lean burn engines that use LPG differently. We are proposing to regulate rich burn engines that use LPG with gasoline engines, and lean burn engines that use LPG with natural gas engines. We are requesting comment on this proposed regulatory regime for stationary SI engines that use LPG.

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 this 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 2227.01.

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.

This proposed rule 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 132,381 labor hours per year at a total annual cost of $18,475,453. This estimate includes a one-time notification for engines greater than 500 HP that are not certified, engine certification, engine performance testing, 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 $8,964,391 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 EPA–HQ–OAR–2005–0030. 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 Officer for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after June 12, 2006, a comment to OMB is best assured of having its full effect if OMB receives it by July 12, 2006. 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 (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For the purposes of assessing the impacts of this proposed rule on small entities, small entity is defined as: (1) A small business based on the following Small Business Administration (SBA) size standards, which are based on employee size: NAICS 333911—Pump and Pumping Equipment Manufacturing—500 employees or less; NAICS 333912—Pump and Compressor Manufacturing—500 employees or less; NAICS 33399P—All other Miscellaneous General Purpose, Machinery—500 employees or less; and NAICS 335312—Motor and Generator Manufacturing—1,000 employees or less; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. For more information, refer to *http://www.sba.gov/size/sizetable2002.html*. The small entity impacts of this proposed rule are estimated in terms of comparing the compliance costs to revenues at affected firms. For more detail, see the current Economic Impact and Small Business Analysis in the public docket.

After considering the economic impacts of this proposed rule on small entities, I certify that this proposed rule will not have a significant economic impact on a substantial number of small entities. This proposed rule is expected to affect 21 ultimate parent businesses. Five of the parent businesses are small according to the SBA small business size standard. One of these 5 firms would have an annualized cost of more than 1 percent of sales associated with meeting the requirements; the estimated cost is between 3 and 4 percent for this small firm. Also, no other adverse impacts are expected to these affected small businesses.

For more information on the small entity impacts associated with this proposed rule, please refer to the Economic Impact and Small Business Analyses in the public docket.

Although this proposed rule would not have a significant economic impact on a substantial number of small entities, we nonetheless tried to reduce

the impact of this proposed rule on small entities. When developing the revised standards, we took special steps to ensure that the burdens imposed on small entities were minimal. We conducted several meetings with industry trade associations to discuss regulatory options and the corresponding burden on industry, such as recordkeeping and reporting.

Following publication of this proposed rule, copies of the **Federal Register** action and, in some cases, background documents, will be publicly available to all industries, organizations, and trade associations that have had input during the regulation development, as well as State and local agencies. We continue to be interested in the potential impacts of this 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 EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least-costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this 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, this proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that this 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, this 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.''

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

Executive Order 13211 (66 FR 28355, May 22, 2001) provides that agencies shall prepare and submit to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, a Statement of Energy Effects for certain actions identified as ''significant energy

actions.'' Section 4(b) of Executive Order 13211 defines ''significant energy actions'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1) (i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action.'' This proposed rule is a significant energy action as designated by the Administrator of the Office of Information and Regulatory Affairs. We have, therefore, prepared a Statement of Energy Effects for this action as follows.

The increase in petroleum product output, which includes increases in fuel production, is estimated at less than 0.00001 percent, or about 10 barrels per day based on 2006 U.S. fuel production nationwide. The reduction in coal production is zero since no coal-fired units will be affected by the requirements of this proposed rule. The reduction in electricity output is estimated at 0.00002 percent, or about 88,000 kilowatt-hours per year based on 2006 U.S. electricity production nationwide. Production of natural gas is expected to decrease by 286,000 cubic feet (ft^3) per day, a decrease of 0.00002 percent from 2006 U.S. production levels. The maximum of all energy price increases, which include increases in natural gas prices as well as those for petroleum products, and electricity, is estimated to be 0.0001 percent nationwide. Energy distribution costs may increase by roughly no more than the same amount as electricity rates. We expect that there will be no discernable impact on the import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. The increase in cost of energy production should be minimal given the very small increases in energy prices and outputs shown above. All of the estimates presented above account for some pass-through of costs to consumers as well as the direct cost impact to producers. For more information on these estimated energy effects, please refer to the economic impact analysis for the proposed rule. This analysis is available in the public docket.

Therefore, we conclude that the proposed rule when implemented will not have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. No. 104–113, section 12(d), 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

This proposed rule involves technical standards. EPA cites the standard test procedures in 40 CFR part 1048, subpart F, §§ 1048.501–515. Other test methods cited in this proposed rule are EPA Methods 1, 1A, 3, 3A, 3B, 4, 10, 18, 25, and 25A of 40 CFR part 60, EPA Methods 320 or 323 of 40 CFR part 63, appendix A, EPA Performance Specifications (PS) 3 and 4A; and ASTM D6522–00 (2005) (for Method 3A and 10) and D6348–03 (for Method 320 or 323). Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these methods. No applicable voluntary consensus standards were identified for EPA Method 1A, PS 3 and 4A, and the nonroad test procedures in 40 CFR part 1048, subpart F, sections 1048.501–515. The search and review results have been documented and are placed in the docket (Docket ID No. EPA–HQ–OAR–2005–0030) for this proposed rule.

One potentially applicable voluntary consensus standard that was identified is not acceptable as an alternative as written, but may be acceptable if minor adjustments are made to the procedures. EPA invites comments on the use of this ISO standard for this 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 § 60.4240 of this proposed rule (specifically 40 CFR 86.1310) for the following reasons. Although ISO 8178–1:1996 has many of the features of EPA test procedures, the ISO standard allows the gaseous measurements to be made in an undiluted sample whereas EPA procedures in 40 CFR 86.1310 require at least one dilution of the sample. The ISO method does allow the gaseous measurements to be made during the double diluted sampling procedures for 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 EPA procedures in 40 CFR 86.1310, the sample lines must be maintained at 191 °C during the hydrocarbon tests to prevent condensation.

Two voluntary consensus standards were identified as appropriate to this proposed rule. The voluntary consensus standard ASTM D6420–99 (2004), ''Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS),'' is appropriate in the cases described below for inclusion in this proposed rule in addition to EPA Method 18 codified at 40 CFR part 60, appendix A, for measurement of total nonmethane organic. Therefore, the standard ASTM D6420–99 is cited in this proposed rule.

Similar to EPA's performance-based Method 18, ASTM D6420–99 is also a performance-based method for measurement of total gaseous organic compounds. However, ASTM D6420–99 was written to support the specific use of highly portable and automated GC/MS. While offering advantages over the traditional Method 18, the ASTM method does allow some less stringent criteria for accepting GC/MS results than required by Method 18. Therefore, ASTM D6420–99 is a suitable alternative to Method 18 only where:

(1) The target compound(s) are those listed in section 1.1 of ASTM D6420–99, and

(2) The target concentration is between 150 ppbv and 100 ppmv.

For target compound(s) not listed in section 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the regulation specifies that the additional system continuing calibration check after each run, as detailed in section 10.5.3 of the ASTM method, must be followed, met, documented, and submitted with the data report even if there is no moisture condenser used or the compound is not considered water soluble. For target compound(s) not listed in section 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 does not apply.

As a result, EPA will cite ASTM D6420–99 in this proposed rule. EPA will also cite Method 18 as a GC option in addition to ASTM D6420–99. This will allow the continued use of GC configurations other than GC/MS.

The voluntary consensus standard ASME PTC 19–10–1981—Part 10, ''Flue and Exhaust Gas Analyses,'' is cited in this proposed rule for its manual method for measuring the O_2 content of exhaust gas. This part of ASME PTC 19–10–1981—Part 10 is an acceptable alternative to Method 3B.

The search for emissions measurement procedures identified ten other voluntary consensus standards. EPA determined that nine of these ten standards identified for measuring emissions of the HAP or surrogates subject to emission standards in this proposed rule were impractical alternatives to EPA test methods for the purposes of this proposed rule. Therefore, EPA does not intend to adopt these standards for this purpose. (See the rulemaking docket for the reasons for this determination for these nine standards.)

One of the ten voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of this rule because it is under development by a voluntary consensus body: ASME/BSR MFC 13M, ''Flow Measurement by Velocity Traverse,'' possibly for EPA Method 1.

Sections 60.4240 and 63.6620 of this proposed rule lists the testing methods included in the regulation. Under §§ 60.8, 60.13, 63.7(f) and 63.8(f) of subpart A to 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

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

40 CFR Part 63

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

40 CFR Part 85

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

40 CFR Part 90

Administrative practice and procedure, Air pollution control.

40 CFR Part 1048

Administrative practice and procedure, Air pollution control.

40 CFR Part 1065

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

40 CFR Part 1068

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

Dated: May 23, 2006.

Stephen L. Johnson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I 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 JJJJ to read as follows:

Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What This Subpart Covers

Sec.

What This Subpart Covers

§ 60.4230 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark

ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after January 1, 2008.

(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP,

(ii) On or after January 1, 2008, for engines with a maximum engine power less than 500 HP.

(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP,

(ii) On or after January 1, 2008, for engines with a maximum engine power less than 500 HP,

(iii) On or after January 1, 2009, for emergency engines.

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006 where the stationary SI ICE are manufactured:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP,

(ii) On or after January 1, 2008, for engines with a maximum engine power less than 500 HP,

(iii) On or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG.

(5) Owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006.

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

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

(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) Stationary SI ICE used for national security are eligible for exemption from the requirements of this subpart as described in 40 CFR 1068.225, except that owners and operators, as well as manufacturers, may be eligible to request this exemption.

Emission Standards for Manufacturers

§ 60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines?

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after January 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that use gasoline and that are manufactured on or after the applicable date in § 60.4230(a)(2) to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in § 60.4230(a)(2) to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

(d) Stationary SI internal combustion engine manufacturers of engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG who choose to certify engines under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart.

§ 60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in § 60.4231 during the useful life of the engines.

Emission Standards for Owners and Operators

§ 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after January 1, 2008 must comply with the emission standards in § 60.4231(a) for their stationary SI ICE.

(b) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in § 60.4230(a)(2) that use gasoline must comply with the emission standards in § 60.4231(b) for their stationary SI ICE.

(c) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in § 60.4230(a)(2) that are rich burn engines that use LPG must comply with the emission standards in § 60.4231(c) for their stationary SI ICE.

(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. These emission standards include emission standards for stationary SI landfill/digester gas ICE and stationary SI emergency ICE.

(e) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (e)(1) through (5) of this section.

(1) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that

are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (a) of this section.

(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that use gasoline engines, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (b) of this section.

(3) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (c) of this section.

(4) Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) of this section, except that such owners and operators must meet a nitrogen oxides (NO_X) emission standard of 3.0 grams per HP-hour (g/HP-hr), a carbon monoxide (CO) emission standard of 4.0 g/HP-hr, and a non-methane hydrocarbons (NMHC) emission standard of 1.0 g/HP-hr, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP;

(ii) Prior to January 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines.

(5) Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) of this section for stationary landfill/digester gas engines.

§ 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in § 60.4233 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Other Requirements for Owners and Operators

§ 60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.

§ 60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?

(a) After January 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in § 60.4233.

(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in § 60.4233.

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 kW (25 HP) that are not gasoline fueled engines and that are not rich burn engines fueled by LPG, owners and operators may not install engines that do not meet the applicable requirements in § 60.4233 after January 1, 2011.

(d) In addition to the requirements specified in §§ 60.4231 and 60.4233, it is prohibited to import stationary SI ICE ≤19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a) and (b) of this section, after the date specified in paragraph (a) and (b) of this section.

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

§ 60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

If you are an owner or operator of an emergency stationary SI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

Compliance Requirements for Manufacturers

§ 60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP)?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in § 60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

§ 60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in § 60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

§ 60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in § 60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, and must test their engines as specified in that part.

§ 60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program?

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in § 60.4231(d) under the voluntary certification program described in this subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section.

(b) Manufacturers must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D–2 cycle of International Organization of Standardization 8178–4 specified in Table 3 to 40 CFR 1048.505.

(c) Certification of stationary SI ICE to the emission standards specified in § 60.4231(d) is voluntary. However, once the manufacturer produces stationary SI ICE certified to the emission standards specified in § 60.4231(d) for a given model year, the requirements on the manufacturer for such stationary SI ICE are not voluntary.

(d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in § 60.4231(d) must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in § 60.4246. In addition, the manufacturer must provide information to the owner and operator of the certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.

(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in § 60.4231(d) must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.

(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in § 60.4231(d) when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on particular fuels to which the engine is not certified.

(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in § 60.4231(d), but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

§ 60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines?

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90 or 40 CFR part 1048, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048, except that engines certified pursuant to the voluntary certification procedures in § 60.4241 are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs § 60.4241(c) through (f). Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90 or 40 CFR part 1048 for that model year may certify any such family that contains both nonroad 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.

(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words ''and stationary'' after the word ''nonroad'' to the label.

(d) For all engines manufactured on or after January 1, 2011, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

Compliance Requirements for Owners and Operators

§ 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator, you must operate and maintain the stationary SI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators of certified engines may only change those settings that are allowed by the manufacturer to ensure compliance with the applicable emission standards. If you own or operate a stationary SI internal combustion engine that is certified to 40 CFR part 90 or 1048, you must also meet the requirements of 40 CFR parts 90, 1048, and/or part 1068, as they apply to you.

(b) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2007, for engines with maximum engine power at or above 500 HP, or January 1, 2008, for engines with maximum engine power below 500 HP, and must comply with the emission standards specified in § 60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in § 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(c) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in § 60.4233(d), you must demonstrate compliance according to one of the

methods specified in paragraphs (c)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year. The engine must be installed and configured according to the manufacturer's specifications to ensure compliance with the applicable standards. Owners and operators of engines that have been certified by the engine manufacturer are not required to conduct any performance testing unless the engine is operated outside of the fuel properties specified by the manufacturer. If the owner or operator uses fuels outside of the fuel specifications (other than propane used solely for emergency purposes for up to 100 hours per year) or does not follow the adjustments specified by the manufacturer, the engine is no longer considered a certified engine and the owner or operator must test the engine to demonstrate compliance, according to the procedures specified in § 60.4244.

(2) Conducting an initial performance test to demonstrate compliance with the emission standards specified in Table 1 to this subpart and according to the requirements specified in § 60.4244, as applicable. If you are an owner or operator of a stationary SI internal combustion engine that is greater than 500 HP, you must also conduct subsequent performance tests every 3 years or 8,760 hours of operation, whichever comes first.

(d) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in § 60.4233(e), you must demonstrate compliance according paragraph (c)(2) of this section.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines, any operation other than emergency operation and maintenance and testing as permitted in this section, is prohibited.

(f) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of § 60.4233.

Testing Requirements for Owners and Operators

§ 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(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 NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:

ER = Emission rate of NO_X in g/HP-hr.

C_d = Measured NO_X concentration in parts per million (ppm).

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 25 degrees Celsius.

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

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppm.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 25 degrees Celsius.

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

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) To determine compliance with the NMHC mass per unit output emission limitation, convert the concentration of NMHC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.832 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 3)}$$

Where:

ER = Emission rate of NMHC in g/HP-hr.

C_d = NMHC concentration measured as propane in ppm.

1.832×10^{-3} = Conversion constant for ppm NMHC measured as propane, to grams per standard cubic meter at 25 degrees Celsius.

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

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

Notification, Reports, and Records for Owners and Operators

§ 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

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

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.

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

(b) The owner or operator of stationary SI emergency ICE must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in § 60.4231 must submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

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

(2) The address of the affected source;

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

(4) Emission control equipment; and

(5) Fuel used.

(d) Owners and operators of stationary SI ICE that have not been certified by an engine manufacturer to meet the emission standards in § 60.4231 must submit a copy of each performance test as conducted in § 60.4244 within 30 days after the test has been completed.

Definitions

§ 60.4246 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.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90 or 40 CFR part 1048, as appropriate.

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.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary SI ICE used for peak shaving are not considered emergency stationary ICE.

Engine manufacturer means the manufacturer of the engine. See the definition of ''manufacturer'' in this section.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Landfill gas means a gaseous byproduct of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Manufacturer has the meaning given in section 216(1) of the Clean Air 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 1048.801.

Model year means either: The calendar year in which the engine was originally produced, or 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.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's

surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-methane hydrocarbons means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

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.

Pipeline-quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

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

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to June 12, 2006 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

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 either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression ignition 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.

Stationary internal combustion engine test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that test stationary ICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Subpart means 40 CFOFR part 60, subpart JJJJ.

Total hydrocarbons means the combined mass of organic compounds measured by the specified procedure for measuring total hydrocarbon, expressed as a hydrocarbon with a hydrogen-to-carbon mass ratio of 1.85:1.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

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 SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105. The values for useful life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The useful life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified under the voluntary manufacturer certification program of this subpart is 8,000 hours or 10 years, whichever comes first.

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in § 60.4231(d).

Tables to Subpart JJJJ of Part 60

TABLE 1 TO SUBPART JJJJ OF PART 60.—NO_X, NMHC, AND CO EMISSION STANDARDS IN G/HP-HR FOR STATIONARY SI ENGINES >25 HP

[Except gasoline and rich burn LPG engines]

Engine type and fuel	Maximum engine power	Manufacture date [a]	Emission standards in g/HP-hr		
			NO_X	CO	NMHC
Non-Emergency SI Natural Gas	25<HP<500 [a]	January 1, 2008	2.0	4.0	1.0
and					
Non-Emergency SI Lean Burn LPG		January 1, 2011	1.0	2.0	0.7
Non-Emergency SI Natural Gas	HP≥500	July 1, 2007	2.0	4.0	1.0
and					
Non-Emergency SI Lean Burn LPG		July 1, 2010	1.0	2.0	0.7
Landfill/Digester Gas	HP<500	January 1, 2008	3.0	5.0	1.0
		January 1, 2011	2.0	5.0	1.0
	HP ≥500	July 1, 2007	3.0	5.0	1.0
		July 1, 2010	2.0	5.0	1.0

TABLE 1 TO SUBPART JJJJ OF PART 60.—NO_X, NMHC, AND CO EMISSION STANDARDS IN G/HP-HR FOR STATIONARY SI ENGINES >25 HP—Continued

[Except gasoline and rich burn LPG engines]

Engine type and fuel	Maximum engine power	Manufacture date [a]	Emission standards in g/HP-hr		
			NO_X	CO	NMHC
Emergency	All Sizes	January 1, 2009	2.0	4.0	1.0

[a] Stationary SI natural gas and lean burn LPG engines between 25 and 50 HP may comply with the requirements of 40 CFR part 1048, instead of this table. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90.

TABLE 2 TO SUBPART JJJJ OF PART 60.—REQUIREMENTS FOR PERFORMANCE TESTS

As stated in § 60.4244, you must comply with the following requirements for performance tests:

For each	Complying with the requirement	You must	Using	According to the following requirements
Stationary SI internal combustion engine demonstrating compliance according to § 60.4243(c)(2).	a. limit the concentration of NO_X in the stationary SI 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 or ASTM method D6522–00 (2005).	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A.	(b) Measurements to determine moisture must be made at the same time as the measurement for NO_X concentration.
		iii. Measure NO_X at the exhaust of the stationary internal combustion engine.	(3) Method 7E of 40 CFR part 60, appendix A, or Method D6522–00 (2005).	(c) Results of this test consist of the average of the three 1-hour or longer runs.
	b. limit the concentration of CO in the stationary SI 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. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A.	(b) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
		iii. Measure CO at the exhaust of the stationary internal combustion engine.	(3) Method 10 of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005).	(c) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of NMHC in the stationary SI 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. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A.	(b) Measurements to determine moisture must be made at the same time as the measurement for NMHC concentration.
	.....	iii. Measure NMHC at the exhaust of the stationary internal combustion engine.	(3) Method 25 or Methods 25A and 18 of part 40 CFR part 60, appendix A.	(c) Results of this test consist of the average of the three 1-hour or longer runs.

PART 63—[AMENDED]

3. The authority citation for part 63 continues to read as follows:

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

Subpart A—[Amended]

4. Section 63.14 is amended by revising paragraph (b)(27) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(b) * * *

(27) ASTM D6522–00 (2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide,

and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c)(2) and Table 5 to subpart ZZZZ of part 63.

* * * * *

5. Section 63.6580 is revised to read as follows:

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

6. Section 63.6585 is amended by revising the introductory text and adding paragraphs (c) and (d) to read as follows:

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

* * * * *

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR parts 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

7. Section 63.6590 is amended by revising paragraphs (a), (b)(1) introductory text, (b)(2), and (b)(3), to read as follows:

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.* (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.

(b) * * *

(1) An affected source which meets either of the criteria in paragraph (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(h).

* * * * *

(2) A new or reconstructed stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of § 63.6645(h) and the requirements of §§ 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) A stationary RICE which is an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE, an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE, an existing 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, an existing 4SRB stationary RICE located at an area source of HAP emissions, an existing compression ignition (CI) stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.

8. Section 63.6595 is amended by revising paragraphs (a) and (b)(2) to read as follows:

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected Sources.* (1) If you have an existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before [DATE OF PUBLICATION OF FINAL RULE IN THE **Federal Register**], you must comply with the applicable emission limitations and operating limitations in this subpart no later than [DATE OF PUBLICATION OF FINAL RULE IN THE **Federal Register**].

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after [DATE OF PUBLICATION OF FINAL RULE IN THE **Federal Register**], you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must comply with the applicable emission limitations and operating limitations in this subpart no later than [DATE OF PUBLICATION OF FINAL RULE IN THE **Federal Register**].

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) * * *

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

* * * * *

9. Section 63.6600 is revised to read as follows:

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB or 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a and 2a to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, or an existing CI stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

10. Section 63.6601 is added to read as follows:

§ 63.6601 What emission limitations must I meet if I own or operate a stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a stationary RICE located at an area source of HAP emissions?

(a) If you own or operate a new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a new or reconstructed stationary RICE located at an area source of HAP emissions, you must comply with the emission limitations in Table 3 to this subpart which apply to you.

(b) If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source, you do not need to comply with the emission limitations in Table 3 to this subpart.

11. Section 63.6610 is amended by revising the section heading, adding introductory text, and revising paragraphs (a) through (c) to read as follows:

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

* * * * *

12. Section 63.6611 is added to read as follows:

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or a stationary RICE located at an area source of HAP emissions?

(a) If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the

provisions specified in Table 5 to this subpart, as appropriate.

(b) If you own or operate a new or reconstructed uncertified stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or a new or reconstructed uncertified stationary RICE located at an area source of HAP emissions you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions specified in Table 5 to this subpart, as appropriate.

(c) If you own or operate a new or reconstructed certified stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or a certified stationary RICE located at an area source of HAP emissions you are not required to conduct an initial performance test.

13. Section 63.6615 is revised to read as follows:

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 4 to this subpart.

14. Section 63.6620 is amended by revising paragraphs (a) and (b) and adding paragraph (j) to read as follows:

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 4 and 5 to this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements in § 63.7(e)(1) and under the specific conditions that this subpart specifies in Table 5. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

* * * * *

(j) To determine compliance with the non-methane hydrocarbons (NMHC) mass per unit output emission limitation, you must use Equation 5 of this section:

$$ER = \frac{C_d \times 1.832 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 5)}$$

Where:

ER = Emission rate of NMHC in g/HP-hr.

C_d = NMHC concentration measured as propane in ppm.

1.832×10^{-3} = Conversion constant for ppm NMHC measured as propane, to grams per standard cubic meter at 25 degrees Celsius.

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

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

15. Section 63.6625 is amended by revising the introductory text of paragraph (a), revising paragraph (b), and adding paragraphs (d), (e), and (f) to read as follows:

§ 63.6625 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you elect to install a continuous emissions monitoring system (CEMS) as specified in Table 6 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2 at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

* * * * *

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 6 to this subpart, you must install, operate, and maintain each CPMS according to the requirements in § 63.8.

* * * * *

(d) If you are operating a new or reconstructed emergency stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a new or reconstructed stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you are operating a new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a new or reconstructed stationary RICE located at an area source of HAP emissions, you must operate and maintain the stationary RICE and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer.

(f) If you are operating a new or reconstructed certified stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB stationary RICE with a site rating of equal to or greater than 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions) or a new or reconstructed certified stationary RICE located at an area source, you may only change those settings that are allowed by the manufacturer.

16. Section 63.6630 is amended by revising paragraph (a) to read as follows:

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 6 to this subpart.

* * * * *

17. Section 63.6640 is amended by revising paragraphs (a), (b), and (e) and adding paragraph (f) to read as follows:

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, and Table 3 to this subpart that apply to you according to methods specified in Table 7 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, and Table 3 to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

* * * * *

(e) You must also report each instance in which you did not meet the requirements in Table 9 to this subpart that apply to you. If you own or operate an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing 4SRB stationary RICE with a site rating equal to or less than 500 brake HP located at a major source of

HAP emissions, an existing 4SRB stationary RICE located at an area source of HAP emissions, an existing CI stationary RICE, an existing emergency stationary RICE, an existing limited use emergency stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you do not need to comply with the requirements in Table 9 to this subpart. If you own or operate a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE, you do not need to comply with the requirements in Table 9 to this subpart, except for the initial notification requirements.

(f) If you own or operate a stationary emergency RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a stationary emergency RICE located at an area source of HAP emissions, you may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of stationary emergency RICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records that Federal, State, or local standards require maintenance and testing or emergency engines beyond 100 hours per year. For owners and operators or emergency engines, any operation other than emergency operation and maintenance and testing as permitted in this section, is prohibited.

18. Section 63.6645 is amended by:

a. Revising paragraphs (a), (b), and (c);

b. Redesignating paragraphs (d) through (f) as paragraphs (h) through (j);

c. Adding paragraphs (d) through (g); and

d. Revising newly redesignated paragraphs (h) and (j) to read as follows:

§ 63.6645 What notifications must I submit and when?

(a) If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions or a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions, you must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than [180 DAYS AFTER DATE THE FINAL RULE IS PUBLISHED IN THE **Federal Register**].

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after [60 DAYS AFTER DATE THE FINAL RULE IS PUBLISHED IN THE **Federal Register**] and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) As specified in § 63.9(b)(2), if you start up your stationary RICE located at an area source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than [180 DAYS AFTER DATE THE FINAL RULE IS PUBLISHED IN THE **Federal Register**].

(g) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions on or after [60 DAYS AFTER DATE THE FINAL RULE IS PUBLISHED IN THE **Federal Register**] and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(h) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with§ 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

* * * * *

(j) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 5 and 6 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 6 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 6 to this subpart that includes a performance test conducted according to the requirements in Table 5 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).

19. Section 63.6650 is amended by:

a. Revising paragraph (a);

b. Revising paragraph (b) introductory text;

c. Revising paragraph (f); and

d. Revising paragraph (g) introductory text to read as follows:

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 8 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

* * * * *

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the

Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 8 to this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

* * * * *

20. Section 63.6655 is amended by revising paragraph (d) and adding paragraphs (e) and (f) to read as follows:

§ 63.6655 What records must I keep?

* * * * *

(d) You must keep the records required in Table 7 to this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) If you own or operate a stationary emergency RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a stationary emergency RICE located at an area source of HAP emissions you must keep records of the operation of the engine that is recorded through the non-resettable hour meter. You must keep records of the operation in emergency and non-emergency that are recorded through the non-resettable hour meter. You must record the time of operation of the engine and the reason the engine was in operation during that time.

(f) If you own or operate a stationary emergency RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions or a stationary emergency RICE located at an area source of HAP emissions, you must keep records documenting proper engine maintenance.

21. Section 63.6665 is revised to read as follows:

§ 63.6665 What parts of the General Provisions apply to me?

Table 9 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate an existing 2SLB RICE, an existing 4SLB stationary RICE, an existing 4SRB RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, an existing 4SRB RICE located at an area source of HAP emissions, an existing CI stationary RICE, an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE, you do not need to comply with any of the requirements of the General Provisions. If you own or operate a new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE, you do not need to comply with the requirements in the General Provisions except for the initial notification requirements.

22. Section 63.6675 is amended by:

a. Adding definitions of ''Certified stationary RICE,'' ''Compression Ignition,'' ''Gasoline,'' ''Maximum engine power,'' ''Model year,'' ''Non-methane hydrocarbons,'' ''Spark ignition,'' ''Total hydrocarbons,'' and ''Useful life'' in alphabetical order;

b. Removing the definitions for ''Compression ignition engine'' and ''Spark ignition engine;'' and

c. Revising the definitions of ''Emergency stationary RICE'' and ''Natural gas;'' to read as follows:

§ 63.6675 What definitions apply to this subpart?

* * * * *

Certified stationary RICE means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90 or 40 CFR part 1048, as appropriate.

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

* * * * *

Emergency stationary RICE means any stationary RICE whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE.

* * * * *

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

* * * * *

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

Model Year means either: the calendar year in which the engine was originally produced, or 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.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-methane hydrocarbons means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

* * * * *

Spark ignition means relating to either: a gasoline-fueled engine; or any other type of engine 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.

* * * * *

Total hydrocarbons means the combined mass of organic compounds measured by the specified procedure for measuring total hydrocarbon, expressed as a hydrocarbon with a hydrogen-to-carbon mass ratio of 1.85:1.

* * * * *

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). The values for useful life for stationary SI ICE with a maximum engine power less than or equal to 25 HP are given in 40 CFR 90.105. The values for useful life for stationary SI ICE with a maximum engine power greater than 25 HP certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The useful life for stationary SI ICE with a maximum engine power greater than 25 HP certified under the voluntary manufacturer certification program 40 CFR part 60 subpart JJJJ is 8,000 hours or 10 years, whichever comes first.

23. Table 1a to Subpart ZZZZ of Part 63 is revised to read as follows:

TABLE 1A TO SUBPART ZZZZ OF PART 63.—EMISSION LIMITATIONS FOR EXISTING, NEW, AND RECONSTRUCTED SPARK IGNITION, 4SRB STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS

[As stated in § 63.6600, you must comply with the following emission limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions at 100 percent load plus or minus 10 percent:]

For each . . .	You must meet the following emission limitations . . .
1. 4SRB stationary RICE	a. reduce formaldehyde emissions by 76 percent or more. If you commenced constructed or reconstruction between December 19, 2002, and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007; or b. limit the concentration of formaldehyde in the stationary RICE exhaust 350 ppbvd or less at 15 percent O_2.

24. Table 1b to Subpart ZZZZ of Part 63 is revised to read as follows:

TABLE 1B TO SUBPART ZZZZ OF PART 63.—OPERATING LIMITATIONS FOR EXISTING, NEW, AND RECONSTRUCTED SPARK IGNITION, 4SRB STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS

[As stated in §§ 63.6600, 63.6630 and 63.6640, you must comply with the following operating emission limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:]

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	comply with any operating limitations approved by the Administrator.

25. Table 2a to Subpart ZZZZ of Part 63 is revised to read as follows:

TABLE 2A TO SUBPART ZZZZ OF PART 63.—EMISSION LIMITATIONS FOR NEW AND RECONSTRUCTED LEAN BURN AND COMPRESSION IGNITION STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS

[As stated in § 63.6600, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE >500 HP located at a major source of HAP emissions at 100 percent load plus or minus 10 percent:]

For each . . .	You must meet the following emission limitation . . .
1. 2SLB stationary RICE	a. reduce CO emissions by 58 percent or more; or b. limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002, and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2 until June 15, 2007.
2. 4SLB stationary RICE	a. reduce CO emissions by 93 percent or more; or b. limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2.
3. CI stationary RICE	a. reduce CO emissions by 70 percent or more; or b. limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2.

26. Table 2b to Subpart ZZZZ of Part 63 is revised to read as follows:

TABLE 2B TO SUBPART ZZZZ OF PART 63.—OPERATING LIMITATIONS FOR NEW AND RECONSTRUCTED LEAN BURN AND COMPRESSION IGNITION STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS

[As stated in §§ 63.6600, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst.	comply with any operating limitations approved by the Administrator.

27. Tables 3 through 8 to Subpart ZZZZ of Part 63 are amended by:

a. Redesignating Tables 3 through 8 as Tables 4 through 9;

b. Adding Table 3; and

c. Revising the newly redesignated Tables 4 through 9 to read as follows:

TABLE 3 TO SUBPART ZZZZ OF PART 63.—EMISSION LIMITATIONS FOR NEW AND RECONSTRUCTED STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS OR NEW OR RECONSTRUCTED STATIONARY RICE LOCATED AT AN AREA SOURCE OF HAP EMISSIONS

For each. . .	With a Maximum Engine Power. . .	And with a Manufacture Date of[a]. . .	You must meet the following emission limitation. . .
1. New or reconstructed SI stationary RICE	≤25 HP	January 1, 2008	Comply with the NMHC emission standards for new SI engines as specified in 40 CFR part 60 subpart JJJJ § 60.4233(a).
2. New or reconstructed SI stationary RICE using gasoline or rich burn engines using LPG.	25<HP<500 HP ≥500	January 1, 2008 July 1, 2007	Comply with the NMHC emission standards for new SI engines as specified in 40 CFR part 60 subpart JJJJ § 60.4233(b) or (c), as applicable.
3. New or reconstructed non-emergency SI natural gas stationary RICE, except engines addressed in row 5 of this table.			

TABLE 3 TO SUBPART ZZZZ OF PART 63.—EMISSION LIMITATIONS FOR NEW AND RECONSTRUCTED STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS OR NEW OR RECONSTRUCTED STATIONARY RICE LOCATED AT AN AREA SOURCE OF HAP EMISSIONS—Continued

For each. . .	With a Maximum Engine Power. . .	And with a Manufacture Date of[a]. . .	You must meet the following emission limitation. . .
and	25<HP<500[a]	January 1, 2008	Limit the concentration of NMHC in the stationary RICE exhaust to 1.0 and g/HP-hr.
New or reconstructed non-emergency SI lean burn LPG stationary RICE, except engines addressed in row 5 of this table.	.....	January 1, 2011	Limit the concentration of NMHC in the stationary RICE exhaust to 0.7 g/HP-hr.
4. New or reconstructed non-emergency SI natural gas Stationary RICE.	HP≥500	July 1, 2007	Limit the concentration of NMHC in the stationary RICE exhaust to 1.0 g/HP-hr.
and			
New or reconstructed non-emergency SI lean burn LPG stationary RICE.	.....	July 1, 2010	Limit the concentration of NMHC in the stationary RICE exhaust to 0.7 g/HP-hr.
5. New or reconstructed non-emergency 4SLB stationary RICE located at a major source of HAP emissions (except landfill and digester gas)).	250 ≤HP ≤500.	See applicability dates in § 63.6595.	a. reduce CO emissions by 93 percent or more; or b. limit the concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2.
6. New or reconstructed 2007 model year and later CI stationary RICE.	Any	2007+ model year	Comply with the PM and NMHC emission standards for new CI engines as specified in 40 CFR part 60 subpart IIII §§ 60.4204 and 60.4205, as applicable.
7. New or reconstructed landfill/digester gas stationary RICE.	HP<500	January 1, 2008	Limit the concentration of NMHC in the stationary RICE exhaust to 1.0 g/HP-hr.
	HP ≥500	July 1, 2007	Limit the concentration of NMHC in the stationary RICE exhaust to 1.0 g/HP-hr.
8. New or reconstructed emergency SI stationary RICE.	Any	January 1, 2009	Limit the concentration of NMHC in the stationary RICE exhaust to 1.0 g/HP-hr.

[a] Stationary SI natural gas and lean burn LPG engines between 25 and 50 HP may comply with the requirements of row 2 of this table, instead of row 3 of this table, as applicable.

TABLE 4 TO SUBPART ZZZZ OF PART 63.—SUBSEQUENT PERFORMANCE TESTS

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. 2SLB, 4SLB, and CI stationary RICE	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[a]
2. 4SRB stationary RICE with a brake HP ≥5,000 HP.	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[a]
3. Stationary RICE (all stationary RICE subcategories and all brake HP ratings.	Limit the concentration of formaldehyde in the stationary RICE exhaust.	Conduct subsequent performance tests semiannually.[a]
4. New and reconstructed non-emergency stationary RICE with a brake HP >500 HP located at an area source of HAP emissions.	Limit the concentration of NMHC in the stationary RICE exhaust.	Conduct subsequent performance tests every 3 years or 8,760 hours of operation, whichever comes first.[b]

[a] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[b] New and reconstructed uncertified stationary RICE with a brake HP ≤500 are not required to conduct subsequent performance testing unless the stationary RICE is rebuilt or undergoes major repair or maintenance. Certified engines are not required to conduct any performance testing.

TABLE 5 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS

[As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:]

For each . . .	Complying with the requirement . . .	You must . . .	Using . . .	According to the following to requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE.	a. reduce CO emissions.	i. measure the O_2 at the inlet and outlet of the control device; and	(1) portable CO and O_2 analyzer	(a) using ASTM D6522–00 (2005)[a] (incorporated by reference see § 63.14). Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
	ii. measure the CO at the inlet and the outlet of the control device.	(1) portable CO and O_2 analyzer.	(a) using ASTM D6522–00 (2005)[a] (incorporation by reference, see § 63.14). The CO concentration must be at 15 percent O_2, dry basis.	

TABLE 5 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

[As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:]

For each . . .	Complying with the requirement . . .	You must . . .	Using . . .	According to the following to requirements . . .
2. 4SRB stationary RICE.	a. reduce formaldehyde emissions.	i. select the sampling port location and the number of traverse points; and.	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i).	(a) sampling sites must be located at the inlet and outlet of the control device.
	.....	ii. measure O_2 at the inlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00(2005).	(a) measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde concentration.
	.....	iii. measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A or ASTM D 6348–03.	(a) measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
	.....	iv. measure formaldehyde at the inlet and the outlet of the control device.	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[b] provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(a) formaldehyde concentration must at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. stationary RICE	a. limit the concentration of formaldehyde in the stationary RICE exhaust.	i. select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i).	(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 RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005).	(a) measurements to determine O_2 concentration must be made at the same time and location as measurements for formaldehyde concentration.
	.....	iii. measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03.	(a) measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
	.....	iv. measure formaldehyde at the exhaust of the stationary RICE.	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03[b] provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(a) Formaldehyde 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.
4. New or reconstructed uncertified stationary RICE, except stationary RICE with a brake HP >500 located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP emissions.	limit the concentration of NMHC in the stationary RICE 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 the outlet of the control device.

TABLE 5 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

[As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:]

For each . . .	Complying with the requirement . . .	You must . . .	Using . . .	According to the following to requirements . . .
	.....	ii. If, necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A.	(b) measurements to determine moisture must be made at the same time as the measurement for NMHC concentration.
	.....	iii. measure NMHC at the exhaust of the stationary internal combustion engine.	(3) Method 25 or Methods 25A and 18 of 40 CFR part 60, appendix A.	(c) Results of this test consist of the average of the three 1-hour or longer runs.

[a] You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428—2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[b] You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

TABLE 6 TO SUBPART ZZZZ OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS

[As stated in §§ 63.6625 and 63.6630 you must initially comply with the emission and operating limitations as required by the following:]

For each. . .	Complying with the requirement to. . .	You have demonstrated initial compliance if. . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions and using oxidation catalyst, and using a CPMS.	i. the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. you have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. you have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions and not using oxidation catalyst.	i. the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. you have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. you have recorded the approved operating parameters (if any) during the initial performance test.
3. 2SLB, 4SLB, and CI stationary Rice	a. reduce CO emissions, and using a CEMS	i. you have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. you have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. the average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.

TABLE 6 TO SUBPART ZZZZ OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS—Continued

[As stated in §§ 63.6625 and 63.6630 you must initially comply with the emission and operating limitations as required by the following:]

For each. . .	Complying with the requirement to. . .	You have demonstrated initial compliance if. . .
4. 4SRB stationary RICE	a. reduce formaldehyde emissions and using NSCR.	i. the average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. you have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. you have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
5. 4SRB stationary RICE	a. reduce formaldehyde emissions and not using NSCR.	i. the average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. you have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. you have recorded the approved operating parameters (if any) during the initial performance test.
6. Stationary RICE	a. limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR.	i. the average formaldehyde concentration corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. you have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. you have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
7. Stationary RICE	a. limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.	i. the average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. you have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. you have recorded the approved operating parameters (if any) during the initial performance test.
8. New and reconstructed SI stationary RICE with a maximum engine power ≤25 HP.	meet emission standards in § 63.6605	you have purchased an engine certified to the emission standards specified in 40 CFR part 60, subpart JJJJ § 60.4233(a).
9. New and reconstructed SI stationary RICE with a maximum engine power >25 HP that use gasoline or that are rich burn and use LPG.	meet emission standards in § 63.6605	you have purchased an engine certified to the emission standards specified in 40 CFR part 60, subpart JJJJ, §§ 60.4233(b) or (c), as applicable.
10. New and reconstructed SI stationary RICE with a maximum engine power >25 HP that use fuels other than gasoline and are not rich burn engines that use LPG.	meet emission standards in § 63.6605	i. you have purchased an engine certified to the emission standards specified in 40 CFR part 60, subpart JJJJ; or ii. the average NMHC concentration, from the three test runs is less than or equal to 0.7g/HP–hr.
11. New and reconstructed CI stationary RICE	meet emission standards in § 63.6605	you have purchased an engine certified to the emission standards specified in 40 CFR part 60, subpart IIII, §§ 60.4204 and 60.4205, as applicable.

TABLE 7 TO SUBPART ZZZZ OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS

[As stated in § 63.6640, you must continuously comply with the emissions and operating limitations as required by the following:]

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions and using an oxidation catalyst, and using a CPM.	i. conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved [a]; and ii. collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. reducing these data to 4-hour rolling averages; and iv. maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and v. measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions and not using an oxidation catalyst, and using a CPMS.	i. conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved [a]; and ii. collecting the approved operating parameter (if any) data according to § 63.6625(b); and iii. reducing these data to 4-hour rolling averages; and iv. maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions and using a CEMS ..	i. collecting the monitoring data according § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to § 63.6620; and ii. demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and iii. conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. 4SRB stationary RICE	a. reduce formaldehyde emissions and using NSCR.	i. collecting the catalyst inlet temperature data according to § 63.6625(b); and ii. reducing these data to 4-hour rolling averages; and iii. maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and iv. measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. 4SRB stationary RICE	a. reduce formaldehyde emissionis and not using NSCR.	i. collecting the approved operating parameter (if any) data according to § 63.6625(b); and ii. reducing these data to 4-hour rolling averages; and iii. maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. 4SRB stationary RICE with a brake HP ≥5,000.	reduce formaldehyde emissions	conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved [a].

TABLE 7 TO SUBPART ZZZZ OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS—Continued

[As stated in § 63.6640, you must continuously comply with the emissions and operating limitations as required by the following:]

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
7. stationary RICE	limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR.	i. conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration the stationary limit [a]; and ii. collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. reducing these data to 4-hour rolling averages; and iv. maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and v. measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. stationary RICE	limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.	i. conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [a]; and ii. collecting the approved operating parameter (if any) data according to § 63.6625(b); and ii. reducing these data to 4-hour rolling averages; and iii. maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. New and reconstructed uncertified stationary RICE with a brake HP >500 located at an area source of HAP emissions.	limit the concentration of NMHC in the stationary RICE exhaust.	i. conducting performance tests every 3 years or 8,760 hours of operation, whichever comes first for NMHC to demonstrate that the required NMHC limit is achieved; and ii. operating and maintaining your stationary RICE and control device according to the manufacturer's written instructions.
10. New and reconstructed certified stationary RICE, except stationary RICE with a brake HP >500 located at a major source of HAP emissions.	meet the emission standards specified in 40 CFR part 60 subpart JJJJ § 60.4233, as applicable.	operating and maintaining your stationary RICE and control device according to the manufacturer's written instructions.

[a] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

TABLE 8 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR REPORTS.

[As stated in § 63.6650, you must comply with the following requirements for reports:]

For each . . .	You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Stationary RICE with a brake HP >500 located at a major source of HAP emissions.	a. compliance report	i. if there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or.	(a) semiannually according to the requirements in § 63.6650(b).

TABLE 8 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR REPORTS.—Continued

[As stated in § 63.6650, you must comply with the following requirements for reports:]

For each . . .	You must submit a(n)	The report must contain . . .	You must submit the report . . .
and			
New or reconstructed 4SLB stationary RICE with a 250≤HP≤500 located at a major source of HAP emissions.	.....	ii. if you had a deviation from any emission limitation or operating limitation during the reporting period, the information in § 63.6660(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), the information in § 63.6650(e); or	(a) semiannually according to the requirements in § 63.6650(b).
		iii. if you had a startup, shutdown or malfunction during the reporting period, the information in § 63.10(d)(5)(i).	(a) semiannually according to the requirements in § 63.6650(b).
2. Stationary RICE with a brake HP >500 located at a major source of HAP emissions.	b. an immediate startup, shutdown, and malfunction report if actions addressing the startup, shutdown, or malfunction were inconsistent with your startup, shutdown, or malfunction plan during the reporting period.	i. actions taken for the event; and	(a) by fax or telephone within 2 working days after starting actions inconsistent with the plan.
and			
New or reconstructed 4SLB stationary RICE with a 250≤HP≤500 located at a major source of HAP emissions.		ii. the information in § 63.10(d)(5)(ii).	(a) by letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authorities. (§ 63.10(d)(5)(ii)) plan.
3. New or reconstructed stationary RICE which fires landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.	c. Report	i. the fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and.	(a) annually, according to the requirements in § 63.6650.
		ii. the operating limits provided in your federally enforceable permit, and any deviations from these limits; and	(a) see item 3(c)(i)(a).
		iii. any problems or errors suspected with the meters.	(a) see item 3(c)(i)(a).

TABLE 9 TO SUBPART ZZZZ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART ZZZZ

[As stated in § 63.6665, you must comply with the following applicable general provisions.]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.1	General applicability of the General Provisions.	Yes.	
§ 63.2	Definitions	Yes	Additional terms defined in § 63.6675.
§ 63.3	Units and abbreviations	Yes.	
§ 63.4	Prohibited activities and circumvention.	Yes.	
§ 63.5	Construction and reconstruction ...	Yes.	
§ 63.6(a)	Applicability	Yes.	
§ 63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources.	Yes.	
§ 63.6(b)(5)	Notification	Yes.	
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources.	Yes.	

TABLE 9 TO SUBPART ZZZZ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART ZZZZ—Continued

[As stated in § 63.6665, you must comply with the following applicable general provisions.]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.6(c)(1)–(2)	Compliance dates for existing sources.	Yes.	
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance dates for existing area sources that become major sources.	Yes.	
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)	Operation and maintenance	Yes.	
§ 63.6(e)(2)	[Reserved].		
§ 63.6(e)(3)	Startup, shutdown, and malfunction plan.	Yes.	
§ 63.6(f)(1)	Applicability of standards except during startup shutdown malfunction (SSM).	Yes.	
§ 63.6(f)(2)	Methods for determining compliance.	Yes.	
§ 63.6(f)(3)	Finding of compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§ 63.6(h)	Opacity and visible emission standards.	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§ 63.6(i)	Compliance extension procedures and criteria.	Yes.	
§ 63.6(j)	Presidential compliance exemption.	Yes.	
§ 63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§ 63.6610 and 63.6611.
§ 63.7(a)(3)	CAA section 114 authority	Yes.	
§ 63.7(b)(1)	Notification of performance test	Yes.	
§ 63.7(b)(2)	Notification of rescheduling	Yes.	
§ 63.7(c)	Quality assurance/test plan	Yes.	
§ 63.7(d)	Testing facilities	Yes.	
§ 63.7(e)(1)	Conditions for conducting performance tests.	Yes.	
§ 63.7(e)(2)	Conduct of performance tests and reduction of data.	Yes	Subpart ZZZZ specifies test methods at § 63.6620.
§ 63.7(e)(3)	Test run duration	Yes.	
§ 63.7(e)(4)	Administrator may require other testing under section 114 of the CAA.	Yes.	
§ 63.7(f)	Alternative test method provisions	Yes.	
§ 63.7(g)	Performance test data analysis, recordkeeping, and reporting.	Yes.	
§ 63.7(h)	Waiver of tests	Yes.	
§ 63.8(a)(1)	Applicability of monitoring requirements.	Yes	Subpart ZZZZ contains specific for monitoring at requirements § 63.6625.
§ 63.8(a)(2)	Performance specifications	Yes.	
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring for control devices	No.	
§ 63.8(b)(1)	Monitoring	Yes.	
§ 63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems.	Yes.	
§ 63.8(c)(1)	Monitoring system operation and maintenance.	Yes.	
§ 63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction.	Yes	Plan
§ 63.8(c)(1)(iii)	Compliance with operation and maintenance requirements.	Yes.	
§ 63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements.	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§ 63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§ 63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§ 63.8(d)	CMS quality control	Yes.	

TABLE 9 TO SUBPART ZZZZ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART ZZZZ—Continued

[As stated in § 63.6665, you must comply with the following applicable general provisions.]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.8(e)	CMS performance evaluation	Yes	Except for 63.8(e)(5)(ii), which applies to COMS.
§ 63.8(f)(1)–(5)	Alternative monitoring method	Yes.	
§ 63.8(f)(6)	Alternative to relative accuracy test.	Yes.	
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at ''63.6635 and 63.6640.
§ 63.9(a)	Applicability and State delegation of notification requirements.	Yes.	
§ 63.9(b)(1)–(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.
§ 63.9(c)	Request for compliance extension	Yes.	
§ 63.9(d)	Notification of special compliance requirements for new sources.	Yes.	
§ 63.9(e)	Notification of performance test	Yes.	
§ 63.9(f)	Notification of visible emission (VE)/opacity test.	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation.	Yes.	
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded.	Yes	If alternative is in use.
§ 63.9(h)(1)–(6)	Notification of	Yes	Except that notifications for compliance status sources using a CEMS are due 30 days after completion of performance evaluations.§ 63.9(h)(4) is reserved.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for record keeping/reporting.	Yes.	
§ 63.10(b)(1)	Record retention	Yes.	
§ 63.10(b)(2)(i)–(v) SSM	Records related to	Yes.	
§ 63.10(b)(2)(vi)–(xi)	Records	Yes.	
§ 63.10(b)(2)(xii)	Record when under waiver	Yes.	
§ 63.10(b)(2)(xiii)	Records when using alternative to RATA.	Yes	For CO standard if using RATA alternative.
§ 63.10(b)(2)(xiv)	Records of supporting documentation.	Yes.	
§ 63.10(b)(3)	Records of applicability determination.	Yes.	
§ 63.10(c)	Additional records for sources using CEMS.	Yes	Except that § 63.10(c)(2)–(4) and (9) are reserved.
§ 63.10(d)(1)	General reporting requirements	Yes.	
§ 63.10(d)(2)	Report of performance test results	Yes.	
§ 63.10(d)(3)	Reporting opacity or VE observations.	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.10(d)(4)	Progress reports	Yes.	
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports.	Yes.	
§ 63.10(e)(1) and (2)(i)	Additional CMS reports	Yes.	
§ 63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§ 63.10(e)(3)	Excess emission and parameter exceedances reports.	Yes	Except that § 63.10(e)(3)(i)(C) is reserved.
§ 63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§ 63.10(f)	Waiver for recordkeeping/reporting.	Yes.	
§ 63.11	Flares	No.	
§ 63.12	State authority and delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by reference	Yes.	
§ 63.15	Availability of information	Yes.	

PART 85—[AMENDED]

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

Authority: 42 U.S.C. 7401–7671q.

29. Section 85.2401 is amended by revising paragraph (a)(13) to read as follows:

§ 85.2401 To whom do these requirements apply?

(a) * * *

(13) Stationary internal combustion engines (See 40 CFR part 60, subparts IIII and JJJJ).

* * * * *

30. Section 85.2403 is amended by revising paragraph (b)(11) to read as follows:

§ 85.2403 What definitions apply to this subpart?

* * * * *

(b) * * *

(11) 40 CFR part 60, subparts IIII and JJJJ.

* * * * *

31. Section 85.2405 is amended by adding paragraph (f) to read as follows:

§ 85.2405 How much are the fees?

* * * * *

(f) Fees for stationary SI internal combustion engine certificate requests shall be calculated in the same manner as for NR SI certificate. 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 90—[AMENDED]

32. The authority citation for part 90 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

33. Section 90.1 is amended by adding paragraph (h) to read as follows:

§ 90.1 Applicability.

* * * * *

(h) This part applies as specified in 40 CFR part 60 subpart JJJJ, to spark-ignition engines subject to the standards of 40 CFR part 60, subpart JJJJ.

34. Section 90.107 is amended by adding paragraph (d)(12) to read as follows:

§ 90.107 Application for certificate.

* * * * *

(d) * * *

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

* * * * *

35. Section 90.114 is amended by revising paragraph (c)(7) to read as follows:

§ 90.114 Requirement of certification—engine information label.

* * * * *

(c) * * *

(7) The statement ''THIS ENGINE CONFORMS TO U.S. EPA REGULATIONS FOR [MODEL YEAR] ENGINES.'';

* * * * *

36. Section 90.201 is revised to read as follows:

§ 90.201 Applicability.

The requirements of this subpart C are applicable to all Phase 2 spark-ignition engines subject to the provisions of subpart A of this part except as provided in § 90.103(a). These provisions are not applicable to any Phase 1 engines. Participation in the averaging, banking and trading program is voluntary, but if a manufacturer elects to participate, it must do so in compliance with the regulations set forth in this subpart. The provisions of this subpart are applicable for $HC+NO_X$ ($NMHC+NO_X$) emissions but not for CO emissions. To the extent specified in 40 CFR part 60, subpart JJJJ, stationary engines certified under this part and subject to the standards of 40 CFR part 60, subpart JJJJ, may participate in the averaging, banking, and trading program described in this subpart.

PART 1048—[AMENDED]

37. The authority citation for part 1048 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

38. Section 1048.1 is amended by revising paragraph (c) to read as follows:

§ 1048.1 Does this part apply to me?

* * * * *

(c) The definition of nonroad engine in 40 CFR 1068.30 excludes certain engines used in stationary applications. These engines may be required by 40 CFR part 60, subpart JJJJ, to comply with some of the provisions of this part 1048; otherwise, these engines are only required to comply with the requirements in § 1048.20. 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 1048 to the same standards that would apply to nonroad engines for the same model year.

* * * * *

39. Section 1048.20 is amended by revising paragraph (a) introductory text and adding paragraph (c) to read as follows:

§ 1048.20 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 § 1048.1(c) as a stationary engine and is not required by 40 CFR part 60, subpart JJJJ, to meet the standards and other requirements of this part 1048 that are equivalent to the requirements applicable to nonroad SI engines for the same model year. To meet labeling requirements, you must do the following things:

* * * * *

(c) Stationary engines required by 40 CFR part 60, subpart JJJJ, to meet the requirements of this part 1048, or 40 CFR part 90, must meet the labeling requirements of 40 CFR 60.4242.

40. Section 1048.101 is amended by adding paragraph (a)(4) to read as follows:

§ 1048.101 What exhaust emission standards must my engines meet?

* * * * *

(a) * * *

(4) For constant-speed engines, the emission standards do not apply for transient testing if you do both of the following things:

(i) Demonstrate that the specified transient duty-cycle is not representative of how your engines will operate in use.

(ii) Demonstrate that the engine's emission controls will function properly to control emissions during transient operation in use. In most cases, you may do this by showing that you use the same controls as a similar variable-speed engine that is certified as complying with the emission standards during transient testing.

* * * * *

41. Section 1048.205 is amended by revising paragraph (w) to read as follows:

§ 1048.205 What must I include in my application?

* * * * *

(w) State whether your certification is intended to include engines used in stationary applications. Also 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) Variable-speed engines.

* * * * *

PART 1065—[AMENDED]

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

Authority: 42 U.S.C. 7401–7671q.

43. Section 1065.1 is amended by adding paragraph (a)(6) to read as follows:

§ 1065.1 Applicability.

(a) * * *

(6) Stationary spark-ignition engines certified using the provisions of 40 CFR part 1048, as indicated under 40 CFR part 60, subpart JJJJ, the standard-setting part for these engines.

* * * * *

PART 1068—[AMENDED]

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

Authority: 42 U.S.C. 7401–7671q.

45. Section 1068.1 is amended by adding paragraph (a)(5) to read as follows:

§ 1068.1 Does this part apply to me?

(a) * * *

(5) Stationary spark-ignition engines certified to the provisions of 40 CFR part 1048, as indicated under 40 CFR part 60, subpart JJJJ.

* * * * *

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