ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 63

[EPA–HQ–OAR–2008–0708, FRL–9679–3]

RIN 2060–AQ58

National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is proposing amendments to the national emission standards for hazardous air pollutants for stationary reciprocating internal combustion engines under section 112 of the Clean Air Act. The proposed amendments include alternative testing options for certain large spark ignition (generally natural gas-fueled) stationary reciprocating internal combustion engines, management practices for a subset of existing spark ignition stationary reciprocating internal combustion engines in sparsely populated areas and alternative monitoring and compliance options for the same engines in populated areas. The EPA is also proposing to include a limited temporary allowance for existing stationary emergency area source engines to be used for peak shaving and non-emergency demand response. In addition, the EPA is proposing to increase the hours that stationary emergency engines may be used for emergency demand response. The proposed amendments also correct minor mistakes in the pre-existing regulations.

DATES: *Comments.* Comments must be received on or before July 23, 2012, or 30 days after date of public meeting if later.

Public Meeting. If anyone contacts us requesting to speak at a public meeting by June 14, 2012, a public meeting will be held on June 22, 2012. If you are interested in attending the public meeting, contact Ms. Pamela Garrett at (919) 541–7966 to verify that a meeting will be held.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2008–0708, by one of the following methods:

- *www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *Email: a-and-r-docket@epa.gov.*
- *Fax:* (202) 566–1741.
- *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. The EPA requests a separate copy also be sent to the contact person identified below (see **FOR FURTHER INFORMATION CONTACT**).
- *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–2008–0708. The 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 *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 email. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through *www.regulations.gov,* your email 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, the 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 the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the 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 Meeting: If a public meeting is held, it will be held at the 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. The EPA also relies on documents in Docket ID Nos. EPA–HQ–OAR–2002–0059, EPA–HQ–OAR–2005–0029, EPA–HQ–OAR–2005–0030, and EPA–HQ–OAR–2010–0295, and incorporated those dockets into the record for this action. 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: Ms. Melanie King, Energy Strategies Group, Sector Policies and Programs Division (D243–01), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number (919) 541–2469; facsimile number (919) 541–5450; email address *king.melanie@epa.gov.*

SUPPLEMENTARY INFORMATION:

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I. General Information

A. Executive Summary

1. Purpose of the Regulatory Action

The purpose of this action is to propose amendments to the national emission standards for hazardous air pollutants (NESHAP) for stationary reciprocating internal combustion engines (RICE) under section 112 of the Clean Air Act (CAA). This proposal was developed to address certain issues that have been raised by different stakeholders through lawsuits, several petitions for reconsideration of the 2010 RICE NESHAP amendments and other communications. This proposal also provides clarifications and corrects minor mistakes in the current RICE NESHAP and revises the new source performance standards (NSPS) for stationary engines, 40 CFR part 60, subparts IIII and JJJJ, for consistency with the RICE NESHAP.

This action is conducted under the authority of section 112 of the CAA, ''Hazardous Air Pollutants,'' (HAP) which requires the EPA to establish NESHAP for the control of hazardous air pollutants (HAP) from both new and existing sources in regulated source categories.

2. Summary of the Major Provisions of the Regulatory Action

After promulgation of the 2010 RICE NESHAP amendments, the EPA received several petitions for reconsideration, legal challenges, and other communications raising issues of practical implementability, and certain factual information that had not been brought to the EPA's attention during the rulemaking. The EPA has considered this information and believes that amendments to the rule to address certain of these issues are appropriate. Therefore, the EPA is proposing to amend 40 CFR part 63, subpart ZZZZ, NESHAP for Stationary RICE. The current regulation applies to owners and operators of existing and new stationary RICE at major and area sources of HAP emissions. The applicability of the rule remains the same and is not changed by this proposal. The EPA is also proposing to amend the NSPS for stationary engines to conform with certain of the amendments proposed for the NESHAP.

The EPA proposes to add an alternative compliance demonstration option for stationary 4-stroke rich burn (4SRB) spark ignition (SI) engines subject to a 76 percent or more formaldehyde reduction. Owners and operators of 4SRB engines would be permitted to demonstrate compliance with the 76 percent formaldehyde reduction emission standard by testing total hydrocarbon (THC) emissions and showing that the engine is achieving at least a 30 percent reduction of THC emissions. The alternative compliance option would provide a less expensive and less complex, but equally effective, method for demonstrating compliance than testing for formaldehyde.

Certain stationary RICE are maintained in order to be able to respond to emergency power needs. The EPA proposes to allow owners and operators of such stationary emergency RICE to operate their engines as part of an emergency demand response program within the 100 hours per year that is already permitted for maintenance and testing of the engines. The 100 hours per year allowance would ensure that a sufficient number of hours are permitted for engines to meet independent system operator (ISO) and regional transmission organization (RTO) tariffs and other requirements for participating in various emergency demand response programs and would assist in stabilizing the grid, preventing electrical blackouts and supporting local electric system reliability. A temporary limited allowance that will expire on April 16, 2017 (the date by which full compliance with the NESHAP From Coal and Oil-Fired Electric Utility Steam Generating Units (77 FR 9304) is expected), is being proposed for stationary emergency engines located at area sources of HAP emissions to be used for up to 50 hours per year for any non-emergency purpose, including peak shaving. The 50 hours is part of the 100 hours per year total allowance for all types of emergency engine operation (except during emergencies where no other power is available, which is not restricted by the rule). The temporary allowance for peak shaving would give sources time to address reliability issues and develop solutions to reliability issues while facilities are coming into compliance with the National Emission Standards for Hazardous Air Pollutants From Coal and Oil-Fired Electric Utility Steam Generating Units, which were promulgated on February 16, 2012 (77 FR 9304).

The EPA proposes management practices for owners and operators of existing stationary 4-stroke SI engines above 500 horsepower (HP) that are area sources of HAP emissions and where the engines are remote from human activity. A remote area is defined as either a Department of Transportation (DOT) Class 1 pipeline location,[1] or, if the facility is not on a pipeline, if within a 0.25-mile radius of the facility there are 5 or less buildings intended for human occupancy. The 0.25-mile radius was chosen as the area would be similar to the area used for the DOT pipeline Class location. The EPA proposes that these sources be subject to management practices rather than numeric emission limits and associated testing and monitoring. This would address reasonable concerns with accessibility, infrastructure, and staffing that stem from the remoteness of the engines and higher costs that would be associated with compliance with the existing requirements. The EPA proposes that existing stationary 4-stroke SI engines above 500 HP at area sources that are in populated areas (defined as not in DOT pipeline Class 1 areas, or if not on a pipeline, if within a 0.25-mile radius of the facility there are more than 5 buildings intended for human occupancy) be subject to an equipment standard that requires the installation of HAP-reducing aftertreatment. The EPA has the discretion to set an equipment standard as GACT for engines located at area sources of HAP. Sources would be required to test their engines to demonstrate compliance initially, perform catalyst activity check-ups, and either monitor the catalyst inlet temperature continuously or employ high temperature shutdown devices to protect the catalyst.

To address how certain existing compression ignition (CI) engines are currently regulated, the EPA proposes to specify that any existing certified CI engine above 300 HP at an area source of HAP emissions that was certified to meet the Tier 3 engine standards and was installed before June 12, 2006, is in compliance with the NESHAP. This provision would create regulatory consistency between the same engines installed before and after June 12, 2006. Engines at area sources of HAP for which construction commenced before June 12, 2006, are considered existing engines under the NESHAP.

[1] A Class 1 location is defined as an offshore area or any class location unit that has 10 or fewer buildings intended for human occupancy.

The EPA is proposing amendments to the requirements for existing stationary Tier 1 and Tier 2 certified CI engines located at area sources that are subject to state and locally enforceable requirements requiring replacement of the engine by June 1, 2018. This is meant to deal with a specific concern regarding the interaction of the NESHAP with certain rules for agricultural engines in the San Joaquin Valley in California. The EPA is proposing to allow these engines to meet management practices under the RICE NESHAP from the May 3, 2013 compliance date until January 1, 2015, or 12 years after installation date, but not later than June 1, 2018. This provision would deal with the issue of owners and operators having to install controls on their engines in order to meet the RICE NESHAP, and then having to replace their engines shortly thereafter due to state and local rules specifying the replacement of engines. Owners and operators will have additional time to replace their engines without having to install controls, but will be required to use management practices during that period.

The last major change the EPA proposes to make is to broaden the definition of remote area sources of Alaska in the RICE NESHAP. Currently, remote areas are those that are not on the Federal Aid Highway System (FAHS). This change would permit existing stationary CI engines at other remote area sources in Alaska to meet management practices as opposed to emission standards likely necessitating aftertreatment. These remote areas have the same challenges as areas not on the FAHS, and complying with the current rule would similarly be prohibitively costly and potentially infeasible. In addition to area sources located in areas of Alaska that are not accessible by the FAHS being defined as remote and subject to management practices, the EPA also proposes that any stationary RICE in Alaska meeting all of the following conditions be subject to management practices:

(1) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid,

(2) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes, and

(3) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy and is used less than 500 hrs per year on a 10-year rolling average.

3. Costs and Benefits

These proposed amendments would reduce the capital and annual costs of the original 2010 amendments by $287 million and $139 million, respectively. The EPA estimates that with the proposed amendments, the capital cost of the rule is $840 million and the annual cost is $490 million ($2010).

These proposed amendments would also result in decreases to the emissions reductions estimated in 2013 from the original 2010 RICE NESHAP amendments. The estimated reductions in 2013 from the 2010 RICE NESHAP rulemaking with these proposed amendments are 2,800 tons per year (tpy) of HAP, 36,000 tpy of carbon monoxide (CO), 2,800 tpy of particulate matter (PM), 9,600 tpy of nitrogen oxide (NO_X), and 36,000 tpy of volatile organic compounds (VOC). The reductions that were estimated for the original 2010 RICE NESHAP amendments were 7,000 tpy of HAP, 124,000 tpy of CO, 2,800 tpy of PM, 96,000 tpy of NO_X, and 58,000 tpy of VOC.

The EPA estimates the monetized co-benefits in 2013 of the original 2010 RICE NESHAP amendments with these proposed amendments incorporated to be $830 million to $2,100 million (2010 dollars) at a 3-percent discount rate and $740 million to $1,800 million (2010 dollars) at a 7-percent discount rate. The benefits that were estimated for the original 2010 RICE NESHAP amendments were $1,500 million to $3,600 million (2010 dollars) at a 3-percent discount rate and $1,300 million to $3,200 million (2010 dollars) at a 7-percent discount rate.

B. 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 industry using a stationary internal combustion engine as defined in the proposed amendments.	2211	Electric power generation, transmission, or distribution.
	622110	Medical and surgical hospitals.
	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.

C. What should I consider as I prepare my comments for the EPA?

1. *Submitting CBI.* Do not submit this information to the EPA through *regulations.gov* or email. 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 the EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI to only the following address: Ms. Melanie King, c/o OAQPS Document Control Officer (Room C404–02), U.S. EPA, Research Triangle Park, NC 27711, Attention

Docket ID No. EPA–HQ–OAR–2008–0708.

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

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

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

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

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

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

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

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

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

Docket. The docket number for this proposed rule is Docket ID No. EPA–HQ–OAR–2008–0708.

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, the 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. Summary of Proposed Amendments

This action proposes amendments to the NESHAP for RICE in 40 CFR part 63, subpart ZZZZ. This action also proposes amendments to the NSPS for stationary engines in 40 CFR part 60, subparts IIII and JJJJ. The NESHAP for stationary RICE to regulate emissions of HAP was developed in several stages. The EPA initially addressed stationary RICE greater than 500 HP located at major sources of HAP emissions in 2004 (69 FR 33473). The EPA addressed new stationary RICE less than or equal to 500 HP located at major sources and new stationary RICE located at area sources in 2008 (73 FR 3568). Most recently, requirements for existing stationary RICE less than or equal to 500 HP located at major sources and existing stationary RICE located at area sources were finalized in 2010 (75 FR 9648 and 75 FR 51570).

The EPA is proposing to address a number of issues that have been raised by different stakeholders through lawsuits, several petitions for reconsideration of the 2010 RICE NESHAP amendments, and other communications. The EPA is also proposing to revise 40 CFR part 60, subparts IIII and JJJJ for consistency with the RICE NESHAP and to make minor corrections and clarifications. The following sections present the issues that the EPA is addressing in this action, background information as to why these issues are causing concern among affected stakeholders, and how the EPA proposes to resolve the issues.

A. Total Hydrocarbon Compliance Demonstration Option

1. Background

Currently, SI 4SRB non-emergency engines greater than 500 HP located at major sources and existing SI 4SRB non-emergency engines greater than 500 HP located at area sources have the option of meeting either a formaldehyde percent reduction or a formaldehyde concentration standard. Formaldehyde was established in the original 2004 RICE NESHAP as an appropriate surrogate for HAP emissions from 4SRB engines based on industry test data available at that time. Based on testing of stationary lean burn engines conducted at Colorado State University (CSU), the EPA was able to establish CO as a surrogate for HAP for lean burn engines. Rich burn engines were not tested at CSU and the data the EPA had available at the time that were used to set the standards for rich burn engines did not support the same relationship between CO and HAP reductions for rich burn engines. Therefore, the EPA was unable to establish CO as a surrogate for HAP emissions for rich burn engines and the emission standard for rich burn engines was specified in terms of formaldehyde, the hazardous air pollutant emitted in the largest quantity from stationary engines.

The EPA has previously acknowledged that it is significantly more expensive and difficult to test for formaldehyde than for CO, but has been unable in the past to support the same flexibility for rich burn engines as is currently in the rule for lean burn engines with the option to meet the standards in terms of either formaldehyde or CO. For these reasons, and expecting that new data for rich burn engines may become available in the future for the EPA to review and reassess possible surrogates for HAP, the EPA requested comment on this issue when proposing NESHAP for stationary existing engines less than or equal to 500 HP at major sources and all stationary existing engines at area sources in 2009 (74 FR 9698). Specifically, the EPA solicited comment on whether it would be appropriate to include an alternative standard in terms of VOC and asked that commenters submit data supporting the relationship between HAP and VOC. Comments the EPA received back on the proposed rule asked that the formaldehyde standards for rich burn engines be replaced with emission standards for THC. The EPA determined at the time that it was not appropriate to adopt an alternative standard in terms of THC (or VOC) for rich burn engines and discussed the reasons why in the 2010 responses to comments.[2] Compliance with the formaldehyde standard in the rule is, therefore, currently demonstrated by initial and continuous performance testing for formaldehyde.

On October 19, 2010, engine manufacturer Dresser-Waukesha submitted a petition for reconsideration of the formaldehyde requirements. The EPA granted the petition for reconsideration on January 5, 2011. (In addition, on November 3, 2010, the Engine Manufacturers Association submitted a petition for judicial review of these requirements.) In the petition for reconsideration, Dresser-Waukesha argued that formaldehyde is difficult and costly to measure. The petition requested that the HAP surrogate for 4SRB engines should be THC rather than formaldehyde. Dresser-Waukesha submitted data from testing it conducted illustrating that THC reduction across the catalyst is an appropriate surrogate for HAP reduction across the catalyst.[3] According to the petitioner, testing for THC is easier and less costly and would substantially reduce the burden of the rule for owners and operators of these engines. Testing for formaldehyde emissions could cost more than double that of testing for THC emissions and on

[2] Memorandum from Melanie King, EPA Energy Strategies Group to EPA Docket EPA–HQ–OAR–2008–0708. Response to Public Comments on Proposed National Emission Standards for Hazardous Air Pollutants for Existing Stationary Reciprocating Internal Combustion Engines Located at Area Sources of Hazardous Air Pollutant Emissions or Have a Site Rating Less Than or Equal to 500 Brake HP Located at Major Sources of Hazardous Air Pollutant Emissions. August 10, 2010. EPA–HQ–OAR–2008–0708–0557.

[3] Letter from Dresser-Waukesha to Melanie King. Follow-up to November 18, 2010 Teleconference. December 6, 2010. EPA–HQ–OAR–2008–0708–0662.

a nationwide basis the EPA estimates that replacing formaldehyde testing with THC testing would result in substantial compliance cost savings annually while achieving the same reduction in HAP emissions.

The EPA has reviewed the data submitted by Dresser-Waukesha. The data provided indicate that a strong relationship exists between percentage reductions of THC and percentage reductions of formaldehyde (the surrogate for HAP emissions in the NESHAP) on rich burn engines using non-selective catalytic reduction (NSCR). Data analyzed by the EPA indicate that if the NSCR is reducing THC by at least 30 percent from 4SRB engines, formaldehyde emissions are guaranteed to be reduced by at least 76 percent, which is the percentage reduction required for the relevant engines. Indeed, the percentage reduction of formaldehyde is invariably well above the 76 percent level, and is usually above 90 percent. Therefore, the EPA agrees with the petitioner that for SI 4SRB engines using NSCR and meeting the NESHAP by showing a percentage reduction of HAP, it would be appropriate to allow sources to demonstrate compliance with the NESHAP by showing a THC reduction of at least 30 percent. Including an optional THC compliance demonstration option would reduce the cost of compliance significantly while continuing to achieve the same level of HAP emission reduction because the emission standards would remain the same. Consequently, the EPA is proposing amendments to allow owners and operators of certain stationary 4SRB engines (*i.e.,* the ones currently subject to a formaldehyde percent reduction requirement) to show compliance with an optional THC compliance demonstration option. The specific amendments the EPA is proposing are presented below.

2. Proposed Amendments

The EPA is proposing to add an alternative method of demonstrating compliance with the NESHAP for stationary 4SRB non-emergency engines greater than 500 HP that are located at major sources of HAP emissions and for existing stationary 4SRB non-emergency engines greater than 500 HP that are located at area sources of HAP emissions that choose to meet the formaldehyde percent reduction requirement of 76 percent or more.

Based on the arguments and evidence presented in the petition discussed above, the EPA is proposing to add a compliance demonstration option for stationary 4SRB engines meeting a 76 percent or more formaldehyde reduction. The compliance demonstration option would be an alternative to the existing method of demonstrating compliance with the formaldehyde percent reduction standard, which is to test engines for formaldehyde. The alternative for owners and operators of 4SRB engines meeting a 76 percent or more formaldehyde reduction would be to test their engines for THC showing that the engine is achieving at least a 30 percent reduction of THC emissions.

Under the proposed amendments, existing and new stationary 4SRB engines greater than 500 HP and located at major sources would still be required to reduce formaldehyde emissions by 76 percent or more or limit the concentration of formaldehyde in the stationary RICE exhaust to 350 parts per billion by volume, dry basis or less at 15 percent oxygen (O_2). However, owners and operators choosing to meet the formaldehyde concentration limit would not have the THC demonstration compliance option, because EPA could not verify a clear relationship between concentrations of THC and concentrations of formaldehyde in exhaust from these SI 4SRB engines. For the reasons discussed in section II.C.1 of this preamble, the EPA is proposing that existing stationary 4SRB non-emergency engines greater than 500 HP located at area sources located in populated areas be subject to an equipment standard and required to install a catalyst. These engines would be subject to testing to demonstrate initially and on an ongoing basis that the catalyst is reducing CO by 75 percent or more, or alternatively that THC emissions are being reduced by 30 percent or more.

Owners and operators of existing stationary 4SRB engines less than or equal to 500 HP who are required to limit the concentration of formaldehyde in the stationary RICE exhaust to 10.3 parts per million by volume, dry basis (ppmvd) or less at 15 percent O_2 do not have the option to demonstrate compliance using THC and must continue to demonstrate compliance by testing for formaldehyde following the methods and procedures specified in the rule.

Owners and operators opting to use the THC compliance demonstration method must demonstrate compliance by showing that the average reduction of THC is equal to or greater than 30 percent. Owners and operators of 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions and demonstrating compliance by using the THC compliance demonstration option must conduct performance testing using Method 25A of 40 CFR part 60, appendix A—Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer. Measurements of THC at the inlet and the outlet of the NSCR must be on a dry basis and corrected to 15 percent O_2 or equivalent carbon dioxide content. To correct to 15 percent O_2, dry basis, owners and operators must measure oxygen using Method 3, 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005) and measure moisture using Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03. Because owners and operators are complying with a percent reduction requirement, the method used must be suitable for the entire range of emissions since pre and post-catalyst emissions must be measured. Method 25A is capable of measuring emissions down to 5 ppmv and is, therefore, an appropriate method for measuring THC emissions for compliance demonstration purposes. The EPA is allowing sources the option to meet a minimum THC percent reduction of 30 percent by using Method 25A of 40 CFR part 60, appendix A to demonstrate compliance with the formaldehyde percent reduction in 40 CFR part 63, subpart ZZZZ.

B. Emergency Demand Response/Peak Shaving

1. Background

This action also proposes to amend provisions in the RICE NESHAP that currently allow owners and operators to operate stationary emergency engines for up to 15 hours per year as part of a demand response program if the RTO or equivalent balancing authority and transmission operator have determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The final rule did not allow emergency engines to be used for purposes of peak shaving or other non-emergency purposes as part of a financial arrangement. These provisions were included in the RICE NESHAP when requirements for existing stationary CI engines were finalized on March 3, 2010 (75 FR 9648). Following the completion of that portion of the rule, the EPA received three main petitions for reconsideration. One petition was from CPower, Inc., EnergyConnect, Inc., EnerNOC, Inc., and Innoventive Power, LLC. (EnerNOC et al.)(EPA–HQ–OAR–2008–0708–0404).

Another petition was received from the Delaware Department of Natural Resources and Environmental Control (DE DNREC) (EPA–HQ–OAR–2008–0708–0400). The third petition was from the National Rural Electric Cooperative Association (NRECA) (OAR–2008–0708–0580). In addition to these main petitions the EPA received a substantial number of letters from others in the electric generation industry.

The petition from EnerNOC, et al., asked that EPA increase the period of time permitted for emergency demand response operation in the rule to 60 hours per year, or the minimum number of hours required by the emergency demand response program. By contrast, the DE DNREC petition asked EPA to reconsider the emergency demand response provision because of the adverse effects that it believes would result from increased emissions from these engines. The petition from NRECA requested that the EPA eliminate the restriction on the use of stationary emergency engines for demand response purposes. The EPA granted the petitions from EnerNOC, et al., DE DNREC and NRECA, and issued a notice on December 7, 2010 (75 FR 75937), requesting comments on whether to amend the 15 hours per year limitation on the operation of stationary emergency RICE participating in emergency demand response programs.

The EPA received more than 120 comments from a number of different entities including various state agencies, utilities, electric cooperatives and industry organizations. Many commenters expressed that 15 hours per year is not sufficient to meet current emergency demand response requirements for participation. For example, several emergency demand response programs have ISO tariff requirements greater than 15 hours per year, including the Electric Reliability Council of Texas emergency demand response program, which has a tariff requirement of 24 hours per year; the Pennsylvania Jersey Maryland (''PJM'') Interconnection, known as the Emergency Load Response Program, which has a tariff requirement of 60 hours per year; and the ISO New England (''ISO–NE''), which forecasts that backup resources would be expected for 55 hours over a 12-month period. Tariff requirements are developed to specify the mandatory time load resources (engines) must be willing and able to operate if the units are enrolled in the program. Conversely, some commenters urged the EPA to allow stationary emergency engines to only operate during true emergencies or when voltage or frequency varies beyond specified parameters.

Based on the EPA's review of the petitions and comments that the EPA has received, the EPA has found it appropriate to propose to amend the current rule to increase the allowance for stationary emergency engine participation in emergency demand response programs to up to 100 hours per year, which would be included as part of the pre-existing allowance of 100 hours for owners of emergency engines to test and maintain their emergency engines. The EPA believes that the emergency demand response programs that exist across the country are important programs that protect the reliability and stability of the national electric service grid. Allowing stationary emergency engines to operate as part of emergency demand response programs can help prevent grid failure or blackouts, by allowing these engines to be used in circumstances of grid instability prior to the occurrence of blackouts. Preventing stationary emergency engines from being able to qualify and participate in emergency demand response programs without having to apply aftertreatment could force owners and operators to leave their engines out of these programs, which will impair the ability of ISOs and RTOs to use these relatively small, quick-starting and reliable sources of energy to protect the reliability of their systems. The EPA does not wish to potentially jeopardize electrical reliability or create a disincentive for stationary emergency engines to participate in these programs. The circumstances during which the EPA would allow stationary emergency engines to operate for emergency demand response purposes include periods during which the regional transmission authority or equivalent balancing authority and transmission operator has declared an Energy Emergency Alert Level 2 (EEA Level 2) as defined in the North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergency, plus during periods where there is a deviation of voltage or frequency of 5 percent or more below standard voltage or frequency. During EEA Level 2 alerts there is insufficient energy supply and a true potential for electrical blackouts. System operators must call on all available resources during EEA Level 2 alerts in order to stabilize the grid to prevent failure. Therefore, this situation is a good indicator of severe instability on the system. Consistent normal voltage provided by the utility is often called power quality and is an important factor in local electric system reliability. Reliability of the system requires electricity being provided at a normal expected voltage. The American National Standards Institute standard C84.1–1989 defines the maximum allowable voltage sag at below 5 percent. On the local distribution level local voltage levels are therefore important and a 5 percent or more change in the normal voltage or frequency is substantial and an indication that additional resources are needed to ensure local distribution system reliability. This situation would be indicative of severe instability on the system. The EPA has revised the language identifying the emergency conditions that currently appears at 40 CFR 63.6640(f) because that language is not as specific as the newly proposed language. The EPA believes that the newly proposed language, along with the preexisting language in the definition of emergency engine describing non-demand response emergency situations, will address all emergency events, including all those that would be recognized solely by the local system operators, such as local weather events. The EPA requests comments on the scope of the new language.

Emergency demand response programs rely on agreements under which owners of engine agree to make their engines available to be called upon for a specific number of hours per year, as required by the relevant ISO or RTO tariff, under specified circumstances considered to indicate emergencies. In order to be enrolled in an emergency demand response program, participants must qualify their engines and must be able to use their emergency engines for the number of hours the program requires. Engines are not generally called upon for the maximum hours required by the tariffs. However, even though the engine may not be called at all or may run for fewer hours than the program requires it to be available in a particular year, the engine must still be available for those theoretical number of hours in order to join the program. Demand response contracts require more hours than the 15 hours per year that is currently in the regulations, and the commenters state that the 15 hours per year is not a sufficient amount of time to ensure the reliability of the program; some programs require up to 60 hours per year, as discussed earlier in this preamble. For these reasons, the EPA believes it is appropriate to allow additional hours for emergency demand response operation in order for such programs to be accessible to stationary emergency engines. Consequently, the EPA is proposing amendments to the rule to increase the limitation on emergency demand response operation to 100 hours per year for stationary emergency engines. It is expected that owners and operators of stationary emergency engines that seek to qualify their units as demand resources would with the proposed increase to 100 hours per year be able to meet the operational and qualification requirements of the different ISOs and RTOs in the country.

As stated, stationary emergency engines that participate in demand response programs may not be called upon at all, but must nonetheless be available to operate for the required amount stipulated by the specific program. The purpose of the limited allowance for emergency demand response is to respond to emergencies, and the EPA is persuaded by the information that has been submitted that 15 hours per year is an insufficient amount of time to allow for emergency demand response needs, given past experience. The EPA believes 100 hours per year is sufficient to cover any potential demand response operation as well as the required maintenance and testing that is also included within the 100 hours of operation.

The EPA has previously determined that stationary emergency engines typically operate well below 50 hours per year and more commonly about 1 to 2 hours per month. A survey conducted by the California Air Resources Board (CARB) indicated the average yearly operation for emergency diesel engines was 31 hours over a period of 3 years. The majority of those hours were for the purpose of maintenance and testing; less than 5 hours was for interruptible service contracts, and the remaining amount for emergency/standby operation (EPA–HQ–OAR–2005–0029–0011). Data from demand response programs in ISO–NE and PJM territories show that backup generation was dispatched for less than 30 hours during the summers of 2008, 2009 and 2010.[4]

However, again, emergency units must be available to operate more than that in most cases to qualify for demand response programs. For instance, PJM requires a minimum ISO tariff of 60 hours per year of engine availability for program participation. Consequently, in order to ensure that a sufficient amount of operating time is available for maintenance and readiness testing, and for demand response operation, the EPA is proposing 100 hours of operation. A number of commenters requested that an allowance of 100 hours per year be allowed in order to provide adequate hours consistent with minimum required hours that customers must be available to operate and to address local distribution system emergencies. For instance, in Hawaii, the emergency demand response program operated by the Hawaiian Electric Company requires that emergency engines be able to operate for 100 hours per year in the event of an emergency in order to participate in the program. In order to provide a sufficient amount of time to cover annual maintenance and testing, which is typically more than 20 hours per year according to the survey conducted by CARB (see EPA–HQ–OAR–2005–0029–0011), plus to cover hours necessary for qualifying for emergency demand response programs or local distribution system emergencies, EPA believes an allowance of 100 hours per year would be appropriate for these activities. Taking into account that there may be situations where annual maintenance and testing could exceed the typical 1 to 2 hours per month and accounting for other emergency demand response programs that require more than 60 hours per year for program participation (*e.g.,* the Hawaiian Electric Company), the EPA believes that 100 hours per year is appropriate for emergency demand response plus maintenance and testing.

The proposed amendment to the rule would mean that stationary emergency engines could operate for a total of 100 hours per year for emergency demand response operation as part of the 100 hours already permitted for maintenance and readiness testing while maintaining their status as emergency units, rather than non-emergency units, and continue to meet the requirements that apply to emergency engines.

On the issue of peak shaving and non-emergency demand response, the EPA is proposing to include a temporary limited allowance for peak shaving and other types of non-emergency use as part of a financial arrangement for existing stationary emergency engines at area sources of HAP, if the peak shaving is done as part of a peak shaving (or load management) program with the local distribution system operator. The power generated under this allowance can only be used at the facility or towards the local system.

The EPA has determined that it is appropriate to include the option for existing stationary emergency engines at area sources to operate for a small number (50) of hours per year for any non-emergency reason and not be penalized or considered a non-emergency engine and subsequently required to install aftertreatment that could be prohibitively costly for these sources in the near term. The EPA is proposing that the 50-hour allowance for peak shaving for emergency engines at area sources be allowed for a limited period of time, but then removed after April 16, 2017. The peak shaving would also be limited to operation as part of a peak shaving (load management program) with the local distribution system operator. Owners would still have the pre-existing 50 hours per year allowance for non-emergency operation after April 16, 2017, but those 50 hours could no longer be used for peak shaving. The temporary allowance for peak shaving would give sources an additional resource for maintaining reliability while facilities are coming into compliance with the NESHAP From Coal and Oil-Fired Electric Utility Steam Generating Units (77 FR 9304). While the EPA does not expect the NESHAP From Coal and Oil-Fired Electric Utility Steam Generating Units to cause regional reliability problems, this limited allowance would allow the owners and operators of these engines more flexibility to run reliability critical units in order to minimize potential grid-related interruptions as coal- and oil-fired baseload power plants may be temporarily shut down to install emission controls to comply with the NESHAP From Coal and Oil-Fired Electric Utility Steam Generating Units.

Including this allowance is important for small electric cooperatives and other entities located at area sources that use these engines to maintain voltage and electric reliability. Many rural electric cooperatives enter agreements with owners of small emergency engines and rely on the engines to reduce demand on the central power supply during periods of high demand, which reduces the cost of power during periods of high demand for the members of the cooperative. Commenters promoting the continued use of peak shaving programs said that maintaining the cost of power as low as possible is important across the country, but is particularly of significant importance to rural electric cooperatives that, according to the commenter, service customers in the most economically depressed areas of the country, where options are the most limited. The commenters argued that if small emergency engines would no longer be permitted to operate for peak shaving purposes without having to be reclassified as non-emergency engines

[4] Memorandum from Stacy Angel, Synapse Energy Economics, Inc. to Doug Hurley, Synapse Energy Economics. Sample Revenue for a 1 MW Backup Generation Unit. June 27, 2011.

and subsequently subject to costly emissions controls, owners could no longer afford to participate in such programs. Cooperatives argued that this would lead to increased costs that would ultimately be passed along to the customers. Commenters also maintained that keeping peak shaving programs would not lead to additional public health risks or emissions because the operation for peak shaving is minimal. If peak shaving is not allowed under the rule, commenters said that this would lead to an increase in central power station capacity and possibly more transmission and distribution line capacity to accommodate the increase in demand resulting from eliminating small emergency engines from being used. This could lead to a larger impact on the environment and public health than allowing a small number of hours for peak shaving purposes. Certain small and remote facilities also rely on financial programs to generate additional income in order to maintain their engines and stay in operation. The additional funds can be essential for many smaller facilities and operations. Providing a limited allowance for peak shaving and non-emergency demand response could generate sufficient income to prevent small facilities and owners from ceasing operation where these engines are in service. In order to further limit the operation of these engines to small, remote facilities, the EPA is proposing that the power generated under this allowance can only be used at the facility or towards the local system. In addition, while the EPA is proposing this allowance until the end of April 16, 2017, the EPA does not believe it is appropriate to continue the program beyond that time. Generators receive considerable compensation for their availability in peak shaving programs and the EPA believes that it is not appropriate to allow these engines to continue receiving compensation for this non-emergency use beyond 2017 without having to reduce their emissions. The generators must by that time decide whether to restrict their use to emergency or limited non-compensated non-emergency use or to reduce the emissions from their engines. The EPA also encourages engine owners and operators, as well as larger system planners, to consider the use of alternative peak shaving options, such as load curtailments, lower emitting distributed generation, combined heat and power, and reduced line losses on the electricity grid.

The previous estimate of emissions from stationary emergency engines is not expected to change due to this proposed limited allowance. To estimate emissions from stationary emergency engines, the EPA has previously estimated that emergency engines would on average operate for 50 hours per year. There is a wide range in how much these engines operate (some well below 50 hours per year), but on average and to be conservative, the EPA believes that 50 hours per year is still representative and consequently the environmental impact the EPA has calculated previously remains appropriate. In consideration of all these issues, the EPA is proposing amendments to the rule to provide a limited allowance for peak shaving for existing stationary emergency engines at area sources of HAP. The specific amendments the EPA is proposing are discussed below.

2. Proposed Amendments

a. Emergency Demand Response. Based on the discussion in section II.B.1 of this preamble, the EPA is proposing to revise the current provisions for stationary engines used for emergency demand response operation. The provisions the EPA is proposing to amend are in §§ 63.6640(f) and 63.6675 of 40 CFR part 63, subpart ZZZZ. Currently, § 63.6640(f)(1)(iii) allows a maximum of 15 hours per year to be spent towards demand response operation under certain qualifying conditions. Also, § 63.6640(f)(1)(ii) currently includes an allowance of 100 hours per year for purposes of maintenance checks and readiness testing. The EPA is proposing that owners and operators of stationary emergency RICE be permitted to operate their engines as part of an emergency demand response program within the 100 hours per year that is permitted for maintenance and testing in § 63.6640(f)(1)(ii). Owners and operators of stationary emergency engines can operate for emergency demand response during periods in which the regional transmission authority or equivalent balancing authority and transmission operator has declared an EEA Level 2 as defined in the North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergency and during periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. The hours spent for emergency demand response operation are added to the hours spent for maintenance and testing purposes and counted towards the 100 hours per year. If the total time spent for demand response operation and maintenance and testing exceeds 100 hours per year the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines. The EPA is recognizing that these engines may be called to operate not only by the regional transmission operator or equivalent to maintain the reliability of the bulk power system, but also by the local transmission and distribution system operators to support the local power systems.

For stationary emergency engines above 500 HP that were installed prior to June 12, 2006, there is currently no emergency demand response allowance and there is no time limit on the use of emergency engines for routine testing and maintenance in § 63.6640(f)(2)(ii). Those engines were not the focus of the 2010 RICE NESHAP amendments; therefore, the EPA did not make any changes to the requirements for those engines as part of the 2010 amendments. For consistency, the EPA is now also proposing that owners and operators of stationary emergency engines installed prior to June 12, 2006, be permitted to operate their engines as part of a demand response program as well for a total of 100 hours per year, including time spent for maintenance and testing.

The EPA is also proposing to amend the NSPS for stationary CI and SI engines in 40 CFR part 60, subparts IIII and JJJJ, respectively, to provide the same allowance for stationary emergency engines for emergency demand response operation as for engines subject to the RICE NESHAP. The NSPS regulations currently do not include such an allowance for emergency demand response operation. For the reasons discussed in section II.B of this preamble as to why the EPA finds it appropriate to allow stationary emergency engines to participate in emergency demand response programs and remain being considered emergency units, and for consistency across engine regulations, the EPA is proposing to add an emergency demand response allowance under the NSPS regulations. Consequently, the EPA is proposing to revise the existing language in §§ 60.4211(f) and 60.4219 of 40 CFR part 60, subpart IIII, and §§ 60.4243(d) and 60.4248 of 40 CFR part 60, subpart JJJJ, to specify that emergency engines may participate in demand response programs for up to 100 hours per year, including hours spent towards maintenance and testing of the emergency engines.

b. Peak Shaving and other Non-emergency Use as Part of a Financial Arrangement. In addition to the changes the EPA is proposing related to emergency demand response operation, the EPA is also including a further provision for owners and operators of existing stationary emergency RICE located at area sources for the reasons discussed in section II.B.1 of this preamble. Paragraph § 63.6640(f) currently allows owners and operators of emergency stationary RICE to operate their engine for 50 hours per year in non-emergency situations. As currently written, the 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators of certain emergency engines may operate the engine for a maximum of 15 hours per year as part of an emergency demand response program. As discussed, the 15 hours per year allowance for emergency engines to participate in emergency demand response programs is being increased to 100 hours per year, but will also include hours spent towards maintaining and conducting readiness testing of the emergency engines. However, additionally, the EPA is also proposing that stationary emergency engines located at area sources be permitted to apply the 50 hours per year that is currently allowed under § 63.6640(f) for non-emergency operation towards any non-emergency operation, including operation as part of a financial agreement with another entity. The peak shaving allowance would expire in 2017. The EPA is specifying that the power can only be used at the facility or towards the local system, and the engine can only be operated for peak shaving as part of a program with the local distribution system operator. The EPA is also clarifying that an engine that exceeds the calendar year limitations on non-emergency operation, including emergency demand response or peak shaving, will be considered a non-emergency engine and subject to the requirements for non-emergency engines for the remaining life of the engine.

C. Non-Emergency Stationary SI RICE Greater Than 500 HP Located at Area Sources

1. Background

The EPA is also proposing to amend the requirements that apply to existing stationary non-emergency 4 stroke SI RICE greater than 500 HP located at area sources of HAP emissions, which are generally natural gas fired engines. Currently, the RICE NESHAP requires owners and operators of such engines to (1) either meet a CO concentration limit of 47 parts ppmvd at 15 percent O_2 or reduce emissions of CO by 93 percent or more, if the engines are 4SLB; and (2) to meet a formaldehyde concentration limit of 2.7 ppmvd at 15 percent O_2 or reduce formaldehyde emissions by 76 percent or more, if the engines are 4SRB. In both cases, the EPA expects that the standards would be met using aftertreatment; oxidation catalysts for 4SLB engines and NSCR for 4SRB engines. In addition to these emission requirements, owners and operators of existing stationary 4-stroke engines greater than 500 HP at area sources are also subject to monitoring, testing, recordkeeping and reporting requirements.

After the final requirements for existing stationary SI engines greater than 500 HP at area sources were published on August 20, 2010 (75 FR 51570), the EPA received petitions from Exterran (EPA–HQ–OAR–2008–0708–0581), the American Petroleum Institute (EPA–HQ–OAR–2008–0708–0582), the Interstate Natural Gas Association of America (EPA–HQ–OAR–2008–0708–0584), and the Gas Processors Association (EPA–HQ–OAR–2008–0708–0587) requesting that the EPA reconsider the requirements of the final rule. The petitioners expressed many similar concerns. As relevant to this rulemaking, petitioners stated that the EPA did not take into account the difference in population density and subsequently did not consider the difference in health impacts in remote versus more heavily populated locations. In the petitioners' opinion, there should be less concern about engines that are located farther away from people; the petitioners believed that the EPA has substantial latitude in requiring less stringent standards for owners and operators of stationary engines in remote areas.

While the EPA does not share all of the views of the petitioners regarding the difference between engines based on their location, the EPA does believe that it is reasonable to create a subcategory of existing stationary SI 4SLB and 4SRB engines above 500 HP located in areas remote from human activity. Engines located in remote areas that are not close to significant human activity may be difficult to access, may not have electricity or communications, and may be unmanned most of the time. The costs of the emission controls, testing, and continuous monitoring requirements may be unreasonable when compared to the HAP emission reductions that would be achieved, considering that the engines are in sparsely populated areas. The EPA believes that establishing a subcategory for SI engines at area sources of HAP located in sparsely populated areas accomplishes the agency's goals and is adequate in protecting public health.

The EPA is proposing to subcategorize sparsely populated engines using criteria based on the existing DOT classification system for natural gas pipelines. This system classifies locations based on their distance to natural gas pipelines covered by the Pipeline and Hazardous Materials Safety Administration safety regulations. The DOT system defines a class location unit as an onshore area that extends 220 yards or 200 meters on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of natural gas pipeline. The DOT approach further classifies pipeline locations into Class 1 through Class 4 locations based on the number of buildings intended for human occupancy. A Class 1 location is defined as an offshore area or any class location unit that has 10 or fewer buildings intended for human occupancy. The DOT classification system also has special provisions for locations that lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. To be considered remote under this proposal, a source could not fall under this special provision and, in addition, must be in a Class 1 location. The EPA requests comment on whether engines located in class location units where buildings with four or more stories above ground are prevalent (Class 4 areas under the DOT classification system) should also specifically not be considered remote.

Stakeholders from the oil and gas industry have indicated to the EPA that the DOT system is well-established and there would be substantial overlap between engines on natural gas pipelines affected by the rule and covered by the DOT pipeline classification system. Incorporating this approach would also create harmonization between the EPA and DOT and would reduce the implementation and enforcement burden for states. Implementation for affected sources would also be less burdensome because the system is already in place and used by the natural gas pipeline industry and covers the majority of these engines. Stakeholders have indicated they are required to review the class location status of natural gas pipeline segments annually. The EPA believes this approach is reasonable for defining the subcategory of remote engines for those engines that are associated with natural gas pipelines. For those engines not associated with pipelines, the EPA is using similar criteria. An engine would be considered to be in sparsely populated areas if within 0.25 mile radius of the engine there are 5 or fewer buildings intended for human occupancy. EPA requests comment on whether, to be considered remote, an engine not associated with a natural gas pipeline should also need to be farther than 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period.

The EPA is proposing management practices as generally available control technologies for existing stationary SI 4SLB and 4SRB area source non-emergency engines located in sparsely populated areas. Given the remote location of the engines from human activity, the EPA believes that it is appropriate not to include requirements that would necessitate aftertreatment and extensive testing and monitoring. The EPA has previously estimated that the costs of oxidation catalyst for existing 4SLB and 4SRB engines above 500 HP at area sources are $310 and $150 million, for capital and annual costs, respectively. The capital and annual costs of the RICE NESHAP for existing 4SLB and 4SRB engines above 500 HP at area sources would be $30 million and $12 million, respectively, if these proposed amendments are incorporated into the rule. Creating a subcategory of these engines for the ones located in sparsely populated areas and not mandating emission controls would significantly reduce the cost of the rule for such engines.

For existing stationary SI 4SLB and 4SRB area source non-emergency engines that are located in populated areas, the EPA is proposing an equipment standard that requires the installation and operation of a catalyst that will have to be tested initially and annually to ensure that the catalyst is working properly and reducing emissions as required. In addition, these units will be required to have devices to shut down the engine if the catalyst is exposed to dangerous temperatures or have continuous monitoring equipment installed to record catalyst inlet temperatures. The EPA is proposing shorter test duration and less rigorous methods than currently required while still ensuring that HAP reductions remain at expected levels for these engines located in populated areas. The specific amendments the EPA is proposing are discussed below.

2. Proposed Amendments

Owners and operators of engines in sparsely populated areas would have to conduct a review of the surrounding area every 12 months to determine if the nearby population has changed. If the engine no longer meets the criteria for a sparsely populated area the owner and operator must within 1 year comply with the emission standards specified below for populated areas. The EPA requests comment on whether engines that are not associated with pipelines should be required to conduct the review less frequently than every 12 months.

Owners and operators of existing stationary 4SLB and 4SRB greater than 500 HP at area sources that are in sparsely populated areas as described above would be required to perform the following:

- Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
- Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

Sources have the option to use an oil analysis program as described in § 63.6625(i) of the rule in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d of the rule. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

Owners and operators of existing stationary 4SLB and 4SRB area source engines above 500 HP in sparsely populated areas would also have to operate and maintain the stationary RICE and aftertreatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

For engines in populated areas, *i.e.,* existing stationary 4SLB and 4SRB non-emergency engines greater than 500 HP at area sources that are located on DOT Class 2 through Class 4 pipeline segments or, for engines not associated with pipelines, that do not meet the 0.25 mile radius with 5 or less buildings criteria, the EPA is proposing to adopt an equipment standard requiring the installation of a catalyst to reduce HAP emissions. Owners and operators of existing area source 4SLB non-emergency engines greater than 500 HP in populated areas would be required to install an oxidation catalyst. Owners and operators of existing area source 4SRB non-emergency engines greater than 500 HP in populated areas would be required to install NSCR. Owners and operators must conduct an initial test to demonstrate that the engine achieves at least a 93 percent reduction in CO emissions or a CO concentration level of 47 ppmvd at 15 percent O_2, if the engine is a 4SLB engine. Similarly, owners and operators must conduct an initial performance test to demonstrate that the engine achieves at least a 75 percent CO reduction or a 30 percent THC reduction, if the engine is a 4SRB engine. The initial test must consist of three test runs. Each test run must be of at least 15 minute duration, except that each test run conducted using the proposed appendix A to 40 CFR part 63, subpart ZZZZ must consist of one measurement cycle as defined by the method and include at least 2 minutes of test data phase measurement. To measure CO, emission sources must use the CO methods already specified in subpart ZZZZ, or the proposed appendix A to 40 CFR part 63, subpart ZZZZ. The THC testing must be conducted using EPA Method 25A.

The owner or operator of both engine types must also use a high temperature shutdown device that detects if the catalyst inlet temperature is too high, or, alternatively, the owner or operator can monitor the catalyst inlet temperature continuously and maintain the temperature within the range specified in the rule. For 4SLB engines the catalyst inlet temperature must remain at or above 450 °F and at or below 1,350 °F. For 4SRB engines the temperature range must be greater than or equal to 750 °F and less than or equal to 1,250 °F at the catalyst inlet.

Owners and operators must in addition to the initial performance test conduct annual checks of the catalyst to ensure proper catalyst activity. The annual check of the catalyst must at a minimum consist of one 15-minute run using the methods discussed above, except that each test run conducted using the proposed appendix A to 40 CFR part 63, subpart ZZZZ must consist of one measurement cycle as defined by the method and include at least 2 minutes of test data phase measurement. Owners and operators of 4SLB engines must demonstrate during the catalyst activity test that the catalyst achieves at least a 93 percent reduction in CO emissions or that the engine exhaust CO emissions are no more than 47 ppmvd at 15 percent O_2. Owners and operators of 4SRB engines must demonstrate that their catalyst is reducing CO emissions by 75 percent or more, or alternatively, that THC emissions are being reduced by at least 30 percent during the catalyst activity check.

If the emissions from the engine do not exceed the levels required for the initial test or annual checks of the catalyst, then the catalyst is considered to be working properly. If the emissions exceed the specified pollutant levels in the rule, the exceedance(s) is/are not considered a violation, but the owner or operator would be required to shut down the engine and take appropriate corrective action (*e.g.,* repairs, clean or replace the catalyst, as appropriate). A follow-up test must be conducted within 7 days of the engine being started up again to demonstrate that the emission levels are being met. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the engine may not operate, except for purposes of start-up and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified.

D. Stationary Agricultural RICE in San Joaquin Valley

In the 2010 amendments to the RICE NESHAP, the EPA required existing non-emergency CI engines above 300 HP to meet a standard of either 70 percent reduction of CO emissions or 49 ppmvd CO, for engines between 300 and 500 HP, or 23 ppmvd CO for engines above 500 HP. The requirements also included testing and monitoring provisions. As with all requirements for existing engines in that rule, owners and operators were required to meet the requirements within 3 years of the effective date of the regulations (May 3, 2013).

Since the finalization of the rule for existing stationary CI engines, stakeholders from the agricultural industry in the San Joaquin Valley area of California have expressed concern regarding the effect of certain of these requirements on engines in the San Joaquin Valley. The San Joaquin Valley Air Pollution Control District (APCD) has indicated that there are 17 stationary CI engines at area sources in San Joaquin Valley certified to the Tier 3 standards in 40 CFR part 89 that were installed between January 1 and June 12, 2006. Under the NESHAP, stationary CI engines at area sources are existing if construction of the engine commenced prior to June 12, 2006. These 17 Tier 3 engines in the San Joaquin Valley, which were built to meet stringent emission standards, would not be able to comply with the applicable RICE NESHAP emission standards for existing engines without further testing and monitoring, and possible retrofit with further controls, due to differences in the emission standards and testing protocols in the RICE NESHAP versus the Tier 3 standards in 40 CFR part 89. However, an identical engine certified to the Tier 3 standards (or Tier 2 standards for engines above 560 kilowatts (kW)) in 40 CFR part 89 that was installed after June 12, 2006, would not have to be retrofit in order to comply with the NESHAP. Stationary CI engines installed after June 12, 2006, at area sources of HAP are required to comply with the NSPS for stationary CI engines, which requires engines to be certified to the standards in 40 CFR parts 89, 94, 1039, and 1042, as applicable. Thus, a 2006 model year stationary CI engine installed after June 12, 2006, that is certified to the applicable standards would meet the requirements of the NESHAP without further controls or testing. While the EPA does not know if other certified Tier 3 engines besides these 17 engines in the San Joaquin Valley were installed prior to June 12, 2006, EPA believes the same rationale should apply to any such engine.

The EPA believes that the Tier 3 standards (Tier 2 for engines above 560 kW) are technologically stringent regulations and believes it is unnecessary to require further regulation of engines meeting these standards. Engines meeting the Tier 3 standards typically employed emission control technologies such as combustion optimization and better fuel control to meet the Tier 3 standards. In order to address the concerns raised by the engine owners in the San Joaquin Valley, the EPA is proposing changes to amend the requirements for any certified Tier 3 (Tier 2 for engines above 560 kW) stationary CI engine located at an area source and installed before June 12, 2006. The EPA is proposing amendments to specify that any existing certified Tier 3 (Tier 2 for engines above 560 kW) CI engine that was installed before June 12, 2006, is in compliance with the NESHAP. This amendment would include any existing stationary Tier 3 (Tier 2 for engines above 560 kW) certified CI engine located at an area source of HAP emissions.

Another concern brought to the EPA's attention by the San Joaquin Valley agricultural industry is that due to state and local requirements in the San Joaquin Valley, many of the Tier 1 and Tier 2 stationary CI engines that are regulated as existing sources under the NESHAP must be replaced in the next few years, only a short time after the emission standards for existing engines must be met. Specifically, the San Joaquin Valley APCD rule for internal combustion engines (Rule 4702) requires Tier 1 and Tier 2 certified engines to meet Tier 4 standards by January 1, 2015, or 12 years after the installation date, but no later than June 1, 2018. The concern is that owners and operators of these engines would have to install aftertreatment by 2013 to meet the emission standards of the RICE NESHAP and then only a few years later be required to replace their engines per San Joaquin Valley APCD Rule 4702. The San Joaquin Valley APCD has identified 49 Tier 1 engines and 360 Tier 2 engines that are scheduled to be replaced under the local rule. The EPA has not identified any engines outside the San Joaquin Valley APCD area that are in the same or similar situation (*i.e.,* required to be replaced shortly after the compliance date for existing engines), but the EPA does not preclude the possibility that there are such engines in other areas, and requests comment and information on other areas that may have similar concerns.

The EPA does not think it is appropriate to require emission controls on a stationary CI engine that is going to be retired only a short time after the rule goes into effect. Stationary CI engines would have to comply with this rule by May 3, 2013, and owners of engines above 300 HP are expected to have to install aftertreatment on their engines in order to meet the emission standards. The EPA estimates that the one-time cost to equip a 500 HP stationary CI engine with the controls necessary to meet the emission standards under this rule is close to $14,000 and more than $3,000 on a yearly basis, not accounting for additional costs associated with monitoring, testing, recordkeeping and reporting. These engines (equipped with aftertreatment) could end up being in operation for less than 2 years or at most only 5 years before having to be replaced with a certified Tier 4 engine, as required by San Joaquin Valley District Rule 4702. It would not be reasonable to require the engine owner to invest in costly controls and monitoring equipment for an engine that will be replaced shortly after the installation of the controls.

Consequently, the EPA is proposing amendments to existing stationary CI engines located at area sources of HAP emissions to address this concern. The EPA is proposing to amend the requirements for existing stationary Tier 1 and Tier 2 certified CI engines located at area sources that are greater than 300 HP that are subject to a state or local rule that requires the engine to be replaced. The EPA is proposing to allow these engines to meet management practices from the applicable May 3, 2013, compliance date until January 1, 2015, or 12 years after installation date (whichever is later), but not later than June 1, 2018. This proposed change would provide owners enough time to replace their engines without mandating a possibly cost prohibitive requirement to change all of the engines in a short amount of time, while still requiring that replacement of the engine or a retrofit of the engine occur relatively quickly after the owner would have to comply with the NESHAP. The EPA is proposing that these engines be subject to management practices until January 1, 2015, or 12 years after installation date (whichever is later), but not later than June 1, 2018, after which time the CO emission standards discussed above (and that are in Table 2d of the rule) apply. The management practices include requirements for when to inspect and replace the engine oil and filter, air cleaner, hoses and belts. The complete details of which management practices are required are shown in Table 2d of the rule. Owners and operators of these existing stationary CI engines located at area sources of HAP emissions that intend to meet management practices rather than the emission limits prior to January 1, 2015, or 12 years after installation date, but not later than June 1, 2018, must submit a notification by March 3, 2013, stating that they intend to use this provision and identifying the state or local regulation that the engine is subject to.

E. Remote Areas of Alaska

1. Background

The RICE NESHAP currently specifies less stringent requirements for existing non-emergency CI engines at area sources located in remote areas of Alaska. Remote areas are defined as those not accessible by the FAHS. The FAHS includes areas with year-round ferry service that are not on the contiguous road system. Under the current regulation, stationary non-emergency CI engines at area sources in areas of Alaska that are not accessible by the FAHS are subject to management practices as opposed to numerical emission standards.

Following the publication of the final rule in 2010, the EPA received requests to expand the definition of remote areas of Alaska. Stakeholders asserted that facilities in areas that are accessible by the FAHS but are not connected to the Alaska Railbelt grid face the same challenges as those in areas not accessible by the FAHS. The Alaska Railbelt Grid refers to the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are the Golden Valley Electric Association, Chugach Electric Association, Matanuska Electric Association, Homer Electric Association, Anchorage Municipal Light & Power, and the City of Seward Electric System. According to the stakeholders, one reason for broadening the definition of remote areas in Alaska is high energy costs, which provide a natural incentive to run CI engines as little as possible. The cost of energy is utilities' greatest concern in Alaska. Also, the stakeholders indicated that extreme weather conditions in certain areas of Alaska is another reason for including additional areas in the definition of remote areas of Alaska. The climate issue is unique to remote areas of Alaska that experience some of the most extreme temperatures in the country. Heavy snowfall and high winds are not uncommon in several areas that are accessible by the FAHS. For instance, Copper Valley Electric Association (CVEA) is a utility accessible by the FAHS, but it includes areas that face the same challenges as other communities not accessible by the FAHS. The utility operates on an isolated grid and relies on diesel power generation. In one of CVEA's territories, Valdez, Alaska, CVEA indicated that this area experiences brutal conditions and stated that Valdez is considered to have the greatest snowfall (326 inches per winter) in any city of the United States. Also, winds at more than 100 miles per hour are not uncommon for Valdez, Alaska, according to CVEA. Temperatures between 40 and 50 below zero are also not abnormal, which emphasizes the extreme reliance on power, CVEA asserted. Travel times and accessibility are issues on a regular basis, but can be additionally exacerbated due to severe weather, which in some cases may lead to avalanches and road closings. In particular, even if a site is on the FAHS, in the event of poor weather conditions and road closings, there are in many cases no alternate roads to travel on. Further, access to specific isolated sites can also be problematic in particular remote areas of Alaska and the problems are unique to Alaska because of the infrastructure and environment. For example, communities made the case that sources along the AMHS that are only accessible by the AMHS should be treated the same way as communities not accessible by the FAHS. The AMHS primarily serves passengers and vehicles, and is not intended for transporting goods. Therefore, the same methods used to bring in goods to communities not on the FAHS are the same as those Alaskan villages served only by the AMHS. Goods are typically brought in to remote communities by barge and this is another example of a scenario that is unique to Alaska. Other arguments for expanding the definition of remote areas of Alaska beyond those not accessible by the FAHS include very low population density in many other remote areas although accessible by the FAHS, and the fact that many of these areas are not connected to the electric grid and rely on back up diesel generation to support fluctuating renewable energy systems. The energy supply system is another area that is particularly different in Alaska compared to the rest of the country where the majority of customers are connected to the grid. Therefore, for the reasons discussed, the EPA is proposing expansion of the remote area source category. This proposal is supported by the Alaska Department of

Environmental Conservation and communities with whom the EPA has discussed this issue.

2. Proposed Amendments

The EPA is proposing to expand the current definition of remote areas of Alaska to extend beyond areas that are not accessible by the FAHS. Specifically, the EPA is proposing that areas of Alaska that are accessible by the FAHS and that meet all of the following criteria are also considered remote and subject to management practices under the rule:

- The stationary CI engine is located in an area not connected to the Alaska Railbelt Grid,
- At least 10 percent of the power generated by the engine per year is used for residential purposes, and
- The system capacity is less than 12 megawatts, or the engine is used exclusively for backup power for renewable energy and is used less than 500 hours per year on a 10-year rolling average.

The EPA is proposing limiting the remote classification to engines that are used at least partially for residential purposes, where the impact of higher energy costs is of greatest concern. The classification is further limited to sources that are used infrequently as backup for renewable power, or that are at smaller capacity facilities, which are generally in more sparsely populated areas.

F. Miscellaneous Corrections and Revisions

The EPA is making some minor corrections to the stationary engine rules to address miscellaneous issues. The EPA is making some minor revisions in the rules to correct mistakes in the current rules or to clarify the rules. The revisions are as follows:

- Revising Tables 1b and 2b of 40 CFR part 63, subpart ZZZZ to correct language requiring the pressure drop to be at plus or minus 10 percent 100 percent load for all engines. The engines that were regulated in 2010 are not subject to the load requirements and therefore the EPA is correcting these tables to make this clear.
- Adding a footnote to Table 1b of 40 CFR part 63, subpart ZZZZ stating that sources can petition the Administrator for a different temperature range consistent with Table 2b of the rule.
- Correcting rows 8 and 10 in Table 2d of 40 CFR part 63, subpart ZZZZ to indicate that the requirements apply to non-emergency, non-black start stationary RICE greater than 500 HP that are 4SLB and 4SRB that operate more than 24 hours per year, as intended in the original rule.
- Revising the language in § 63.6625(b) of 40 CFR part 63, subpart ZZZZ that states ''* * * in paragraphs (b)(1) through (5) of this section'' to ''in paragraphs (b)(1) through (6) of this section.''
- Changing Tables 2c and 2d of 40 CFR part 63, subpart ZZZZ, where it currently specifies to inspect air cleaner, to also specify that it must be replaced as necessary.
- Revising § 63.6620(b) of 40 CFR part 63, subpart ZZZZ to indicate that testing must be conducted within plus or minus 10 percent of 100 percent load for stationary RICE greater than 500 HP located at a major source (except existing non-emergency CI stationary RICE greater than 500 HP located at a major source) that are subject to testing.
- Specifying that, as was intended in the rule adding these requirements, the operating limitations (pressure drop and catalyst inlet temperature) in Tables 1b and 2b of 40 CFR part 63, subpart ZZZZ do not have to be met during startup.
- For consistency, and as provided in the original RICE NESHAP for other stationary RICE, clarifying in 40 CFR part 63, subpart ZZZZ that the existing stationary RICE regulated in 2010 (*i.e.,* engines constructed before June 12, 2006 that are less than or equal to 500 HP located at major sources or engines located at area sources) must burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis in order to qualify as a landfill or digester gas engine under the rule.
- Clarifying § 60.4207(b) of 40 CFR part 60, subpart IIII to specify that owners and operators of stationary CI engines less than 30 liters per cylinder that are subject to the subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b), except owners and operators may use up any diesel fuel acquired prior to October 1, 2010, that does not meet the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
- Adding appendix A to 40 CFR part 63, subpart ZZZZ, which includes procedures that can be used for measuring CO emissions from existing stationary 4SLB and 4SRB stationary RICE above 500 HP located at area sources of HAP that are complying with the emission limits in Table 2d of 40 CFR part 63, subpart ZZZZ.
- Reinstating the footnotes for Table 2 of 40 CFR part 60, subpart JJJJ. The footnotes were inadvertently removed when the rule was amended on June 28, 2011 (76 FR 37954).
- Adding ''part 60'' in Table 4 of the NESHAP, in row 2 where it refers to 40 CFR appendix A.
- Clarifying in § 63.6625(a) of 40 CFR part 63, subpart ZZZZ that a continuous emission monitoring system is only required to be installed at the outlet of the control device for engines that are complying with the requirement to limit the concentration of CO.
- Clarifying that, as was intended in the rule adding these requirements, all of the standards for stationary SI RICE in § 60.4231(b) of 40 CFR part 60, subpart JJJJ are for stationary SI RICE that use gasoline.
- Clarifying that, as was intended in the rule adding these requirements, all of the standards for stationary SI RICE in § 60.4231(c) of 40 CFR part 60, subpart JJJJ are for stationary SI RICE that are rich burn engines that use LPG.
- Clarifying that, as was intended in the rule adding these requirements, all of the standards for stationary SI RICE in § 60.4231(d) of 40 CFR part 60, subpart JJJJ are for stationary SI RICE that are not gasoline engines or rich burn engines that use LPG.

G. Compliance Date

The EPA has received questions regarding whether the compliance dates for engines impacted by the 2010 amendments and this proposed reconsideration will be extended. Affected sources that may be impacted by this action have expressed concern about having sufficient time to comply with the rule by the compliance date, which is May 3, 2013, for existing stationary CI RICE and October 19, 2013, for existing stationary SI RICE. Sources impacted by this reconsideration are particularly concerned with compliance in the event that the EPA does not finalize changes that are substantially similar to the changes being proposed in this action. The EPA does not intend to extend the May 3, 2013, and October 19, 2013, compliance dates, because there are many engines that must meet those compliance dates that are not impacted by this reconsideration. However, the EPA notes that sources that are affected by the reconsideration and that may need additional time to install controls to comply with the applicable requirements can request up to an additional year to install controls, as specified in 40 CFR 63.6(i). The EPA requests comment regarding whether special consideration should be given to engines whose requirements would be reduced by this proposal if, in the final rule, the EPA does not finalize the proposed reduced requirements.

III. Summary of Environmental, Energy and Economic Impacts

A. What are the air quality impacts?

The EPA estimates that the rule with the proposed amendments incorporated will reduce emissions from existing stationary RICE as shown in Table 1 of this preamble. The emissions reductions the EPA previously estimated for the 2010 amendments to the RICE NESHAP are shown for comparison. Reductions are shown for the year 2013, which is the first year the final RICE NESHAP will be implemented for existing stationary RICE.

TABLE 1—SUMMARY OF REDUCTIONS FOR EXISTING STATIONARY RICE

Pollutant	Emission reductions (tpy) in the year 2013			
	2010 Final rule		2010 Final rule with these proposed amendments	
	CI	SI	CI	SI
HAP	1,014	6,008	1,005	1,778
CO	14,342	109,321	14,238	22,211
PM	2,844	N/A	2,818	N/A
NO_X	N/A	96,479	N/A	9,648
VOC	27,395	30,907	27,142	9,147

The EPA estimates that more than 900,000 stationary CI engines will be subject to the rule in total, but only a small number of stationary CI engines are affected by the proposed amendments in this action. It is estimated that approximately 330,000 stationary SI engines will be subject to the rule in total; however, only a subset of stationary SI engines are affected by the proposed amendments in this action. The decrease in estimated reductions for SI engines is primarily due to proposed amendments to the requirements for existing 4SRB and 4SLB SI engines larger than 500 HP at area sources of HAP that are in remote areas. Those engines were required by the 2010 rule to meet emission limits that were expected to require the installation of aftertreatment to reduce emissions; under these proposed amendments, those engines are required to meet management practices that would not require the installation of aftertreatment. Further information regarding the estimated reductions of this final rule can be found in the memorandum titled, ''RICE NESHAP Reconsideration Amendments—Cost and Environmental Impacts,'' which is available in the docket (EPA–HQ–OAR–2008–0708). The EPA did not estimate any reductions associated with the minor changes to the NSPS for stationary CI and SI engines.

B. What are the cost impacts?

The proposed amendments are expected to reduce the overall cost of the original 2010 RICE NESHAP amendments. The EPA estimates that with these proposed amendments incorporated the cost of the rule for existing stationary RICE will be as shown in Table 2 of this preamble. The costs the EPA previously estimated for the 2010 amendments to the RICE NESHAP are shown for comparison. The costs that were previously estimated are shown in the original year ($2008 for CI and $2009 for SI), as well as updated to 2010 dollars.

TABLE 2—SUMMARY OF COST IMPACTS FOR EXISTING STATIONARY RICE

Engine	2010 Final rule	2010 Final rule with these proposed amendments	
Total Annual Cost			
SI	$253 million ($2009)	$251 million ($2010)	$115 million ($2010).
CI	$373 million ($2008)	$375 million ($2010)	$373 million ($2010).
Total Capital Cost			
SI	$383 million ($2009)	$380 million ($2010)	$103 million ($2010).
CI	$744 million ($2008)	$748 million ($2010)	$740 million ($2010).

Further information regarding the estimated cost impacts of the proposed amendments, including the cost of the proposed amendments in 2010 dollars, can be found in the memorandum titled, ''RICE NESHAP Reconsideration Amendments—Cost and Environmental Impacts,'' which is available in the docket (EPA–HQ–OAR–2008–0708). The EPA did not estimate costs associated with the changes to the NSPS for stationary CI and SI engines. The changes to the NSPS are minor and are not expected to impact the costs of those rules.

C. What are the benefits?

Emission controls installed to meet the requirements of these rules will generate benefits by reducing emissions of HAP as well as criteria pollutants and their precursors, including CO, NO_X and VOC. NO_X and VOC are precursors to $PM_{2.5}$ (particles smaller than 2.5 microns) and ozone. The criteria pollutant benefits are considered co-benefits for these rules. For these rules, we were only able to quantify the health co-benefits associated with reduced exposure to $PM_{2.5}$ from emission reductions of NO_X and directly emitted $PM_{2.5}$.

The EPA previously estimated that the monetized co-benefits in 2013 of the stationary CI NESHAP would be $940 million to $2,300 million (2008 dollars) at a 3-percent discount rate and $850 million to $2,100 million (2008 dollars) at a 7-percent discount rate.[5] For stationary SI engines, EPA previously estimated that the monetized co-benefits in 2013 would be $510 million to $1,200 million (2009 dollars) at a 3-percent discount rate) and $460 million to $1,100 million (2009 dollars) at a 7-percent discount rate.[6]

The proposed amendments are expected to reduce the overall emission reductions of the rules. In addition to revising the anticipated emission reductions, we have also updated the methodology used to calculate the co-benefits to be consistent with methods used in more recent rulemakings, which is summarized below and discussed in more detail in the Regulatory Impact Analysis (RIA). We estimate the monetized co-benefits of the proposed amendments of the CI NESHAP in 2013 to be $770 million to $1,900 million (2010 dollars) at a 3-percent discount rate and $690 million to $1,700 million (2010 dollars) at a 7-percent discount rate. For SI engines, we estimate the monetized co-benefits of the proposed amendments in 2013 to be $62 million to $150 million (2010 dollars) at a 3-percent discount rate and $55 million to $140 million (2010 dollars) at a 7-percent discount rate.

Using alternate relationships between $PM_{2.5}$ and premature mortality supplied by experts, higher and lower co-benefits estimates are plausible, but most of the expert-based estimates fall between these two estimates.[7] A summary of the monetized co-benefits estimates for CI and SI engines at discount rates of 3 percent and 7 percent is in Table 3 of this preamble.

TABLE 3—SUMMARY OF THE MONETIZED $PM_{2.5}$ CO-BENEFITS FOR PROPOSED AMENDMENTS TO THE NESHAP FOR STATIONARY CI AND SI ENGINES

[Millions of 2010 dollars] [a,b]

Pollutant	Emission reductions (tons per year)	Total monetized co-benefits (3 percent discount)	Total monetized co-benefits (7 percent discount)
Original 2010 Final Rules [c]			
Stationary CI Engines:			
Total Benefits	2,844 $PM_{2.5}$ 27,395 VOC	$950 to $2,300	$860 to $2,100.
Stationary SI Engines:			
Total Benefits	96,479 NO_X 30,907 VOC	$510 to $1,300	$470 to $1,100.
2010 Final Rules with these Proposed Amendments			
Stationary CI Engines:			
Directly emitted $PM_{2.5}$	2,818	$770 to $1,900	$690 to $1,700.
Stationary SI Engines:			
NO_X	9,648	$62 to $150	$55 to $140.

[a] All estimates are for the analysis year (2013) and are rounded to two significant figures so numbers may not sum across rows. The total monetized co-benefits reflect the human health benefits associated with reducing exposure to $PM_{2.5}$ through reductions of $PM_{2.5}$ precursors, such as NO_X and directly emitted $PM_{2.5}$. It is important to note that the monetized co-benefits do not include reduced health effects from exposure to HAP, direct exposure to NO_2, exposure to ozone, ecosystem effects or visibility impairment.

[b] PM co-benefits are shown as a range from Pope, *et al.* (2002) to Laden, *et al.* (2006). These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effects estimates by particle type.

[c] The benefits analysis for the 2010 final rules applied out-dated benefit-per-ton estimates compared to the updated estimates described in this preamble and reflected monetized co-benefits for VOC emissions, which limits direct comparability with the monetized co-benefits estimated for these proposed rules. In addition, these estimates have been updated from their original currency years to 2010$, so the rounded estimates for the 2010 final rules may not match the original RIAs.

These co-benefits estimates represent the total monetized human health benefits for populations exposed to less $PM_{2.5}$ in 2013 from controls installed to reduce air pollutants in order to meet these rules. To estimate human health co-benefits of these rules, the EPA used benefit-per-ton factors to quantify the changes in $PM_{2.5}$-related health impacts and monetized benefits based on changes in directly emitted $PM_{2.5}$ and NO_X emissions. These benefit-per-ton factors were derived using the general approach and methodology laid out in Fann, Fulcher, and Hubbell (2009).[8] This approach uses a model to convert emissions of $PM_{2.5}$ precursors into changes in ambient $PM_{2.5}$ levels and another model to estimate the changes in human health associated with that change in air quality, which are then divided by the emission reductions to create the benefit-per-ton estimates. However, for these rules, we utilized air quality modeling of emissions in the ''Non-EGU Point other'' category because we do not have modeling specifically for stationary engines.[9] [10]

[5] U.S. Environmental Protection Agency. 2010. *Regulatory Impact Analysis (RIA) for Existing Stationary Compression Ignition Engines NESHAP: Final Draft.* Research Triangle Park, NC. February. *http://www.epa.gov/ttn/ecas/regdata/RIAs/CIRICENESHAPRIA2-17-0cleanpublication.pdf.*

[6] U.S. Environmental Protection Agency. 2010. *Regulatory Impact Analysis (RIA) for Existing Stationary Spark Ignition (SI) RICE NESHAP: Final Report.* Research Triangle Park, NC. August. *http://www.epa.gov/ttn/ecas/regdata/RIAs/riceriafinal.pdf.*

[7] Roman, *et al.,* 2008. *Expert Judgment Assessment of the Mortality Impact of Changes in Ambient Fine Particulate Matter in the U.S.,* Environ. Sci. Technol., 42, 7, 2268–2274.

[8] Fann, N., C.M. Fulcher, B.J. Hubbell. 2009. *The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution.* Air Qual Atmos Health (2009) 2:169–176.

[9] U.S. Environmental Protection Agency. 2012. *Technical support document: Estimating the benefit per ton of reducing $PM_{2.5}$ precursors from other point sources.* Research Triangle Park, NC.

[10] Stationary engines are included in the other non-EGU point source category. If the affected stationary engines are more rural than the average of the non-EGU sources modeled, then it is possible that the benefits may be somewhat less than we have estimated here. The TSD provides the geographic distribution of the air quality changes

The primary difference between the estimates used in this analysis and the estimates reported in Fann, Fulcher, and Hubbell (2009) is the air quality modeling data utilized. While the air quality data used in Fann, Fulcher, and Hubbell (2009) reflects broad pollutant/source category combinations, such as all non-EGU stationary point sources, the air quality modeling data used in this analysis has narrower sector categories. In addition, the updated air quality modeling data reflects more recent emissions data (2005 rather than 2001) and has a higher spatial resolution (12-km rather than 36-km grid cells). The benefits methodology, such as health endpoints assessed, risk estimates applied, and valuation techniques applied did not change. As a result, the benefit-per-ton estimates presented herein better reflect the geographic areas and populations likely to be affected by this sector. However, these updated estimates still have similar limitations as all national-average benefit-per-ton estimates in that they reflect the geographic distribution of the modeled emissions, which may not exactly match the emission reductions in this rulemaking, and they may not reflect local variability in population density, meteorology, exposure, baseline health incidence rates, or other local factors for any specific location.

We apply these national benefit-per-ton estimates calculated for this sector separately for directly emitted $PM_{2.5}$ and NO_X and multiply them by the corresponding emission reductions. The sector modeling does not provide estimates of the $PM_{2.5}$-related benefits associated with reducing VOC emissions, but these unquantified benefits are generally small compared to other $PM_{2.5}$ precursors. More information regarding the derivation of the benefit-per-ton estimates for this category is available in the technical support document, which is available in the docket.

These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effects estimates by particle type. The main $PM_{2.5}$ precursors affected by these rules are directly emitted $PM_{2.5}$ and NO_X. Even though we assume that all fine particles have equivalent health effects, the benefit-per-ton estimates vary between precursors depending on the location and magnitude of their impact on $PM_{2.5}$ levels, which drive population exposure. For example, directly emitted $PM_{2.5}$ has a lower benefit-per-ton estimate than direct $PM_{2.5}$ because it does not form as much $PM_{2.5}$; thus, the exposure would be lower, and the monetized health benefits would be lower.

It is important to note that the magnitude of the $PM_{2.5}$ co-benefits is largely driven by the concentration response function for premature mortality. Experts have advised the EPA to consider a variety of assumptions, including estimates based both on empirical (epidemiological) studies and judgments elicited from scientific experts, to characterize the uncertainty in the relationship between $PM_{2.5}$ concentrations and premature mortality. We cite two key empirical studies, one based on the American Cancer Society cohort study [11] and the extended Six Cities cohort study.[12] In the RIA for this proposed amendments rule, which is available in the docket, we also include benefits estimates derived from the expert judgments and other assumptions.

The EPA strives to use the best available science to support our benefits analyses. We recognize that interpretation of the science regarding air pollution and health is dynamic and evolving. After reviewing the scientific literature, we have determined that the no-threshold model is the most appropriate model for assessing the mortality benefits associated with reducing $PM_{2.5}$ exposure. Consistent with this finding, we have conformed the previous threshold sensitivity analysis to the current state of the PM science by incorporating a new ''Lowest Measured Level'' (LML) assessment in the RIA accompanying these rules. While an LML assessment provides some insight into the level of uncertainty in the estimated PM mortality benefits, the EPA does not view the LML as a threshold and continues to quantify PM-related mortality impacts using a full range of modeled air quality concentrations.

Most of the estimated PM-related co-benefits for these rules would accrue to populations exposed to higher levels of $PM_{2.5}$. For this analysis, policy-specific air quality data are not available due to time or resource limitations, and thus, we are unable to estimate the percentage of premature mortality associated with this specific rule's emission reductions at each $PM_{2.5}$ level. As a surrogate measure of mortality impacts, we provide the percentage of the population exposed at each $PM_{2.5}$ level using the source apportionment modeling used to calculate the benefit-per-ton estimates for this sector. Using the Pope, *et al.* (2002) study, 77 percent of the population is exposed to annual mean $PM_{2.5}$ levels at or above the LML of 7.5 micrograms per cubic meter (μg/m^3). Using the Laden, *et al.* (2006) study, 25 percent of the population is exposed above the LML of 10 μg/m^3. It is important to emphasize that we have high confidence in $PM_{2.5}$-related effects down to the lowest LML of the major cohort studies. This fact is important, because, as we model avoided premature deaths among populations exposed to levels of $PM_{2.5}$, we have lower confidence in levels below the LML for each study.

Every benefit analysis examining the potential effects of a change in environmental protection requirements is limited, to some extent, by data gaps, model capabilities (such as geographic coverage) and uncertainties in the underlying scientific and economic studies used to configure the benefit and cost models. Despite these uncertainties, we believe the benefit analysis for these rules provides a reasonable indication of the expected health benefits of the rulemaking under a set of reasonable assumptions. This analysis does not include the type of detailed uncertainty assessment found in the 2006 $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) RIA because we lack the necessary air quality input and monitoring data to run the benefits model. In addition, we have not conducted air quality modeling for these rules, and using a benefit-per-ton approach adds another important source of uncertainty to the benefits estimates. The 2006 $PM_{2.5}$ NAAQS benefits analysis [13] provides an indication of the sensitivity of our results to various assumptions.

It should be noted that the monetized co-benefits estimates provided above do not include benefits from several important benefit categories, including exposure to HAP, NO_X, ozone exposure, as well as ecosystem effects and visibility impairment. Although we do

associated with this sector. It is important to emphasize that this modeling represents the best available information on the air quality impact on a per ton basis for these sources.

[11] Pope, *et al.*, 2002. *Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution.* Journal of the American Medical Association 287:1132–1141.

[12] Laden, *et al.*, 2006. *Reduction in Fine Particulate Air Pollution and Mortality.* American Journal of Respiratory and Critical Care Medicine 173:667–672.

[13] U.S. Environmental Protection Agency, 2006. *Proposed Amendments Regulatory Impact Analysis: $PM_{2.5}$ NAAQS.* Prepared by Office of Air and Radiation. October. Available on the Internet at *http://www.epa.gov/ttn/ecas/ria.html.*

not have sufficient information or modeling available to provide monetized estimates for these proposed amendments, we include a qualitative assessment of these unquantified benefits in the RIA for these proposed amendments.

For more information on the benefits analysis, please refer to the RIA for these proposed amendments, which is available in the docket.

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

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

IV. Solicitation of Public Comments and Participation

The 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 the EPA to make maximum use of the comments. The agency invites all parties to coordinate their data collection activities with the EPA to facilitate mutually beneficial and cost-effective data submissions. A redline/strikeout version of the complete NESHAP for stationary RICE, which shows the changes that are being proposed in this action, is available from the rulemaking docket.

The EPA is seeking specific comment on the proposal to temporarily allow stationary emergency engines located at area sources to apply the 50 hours per year that is currently allowed under § 63.6640(f) for non-emergency operation towards any type of non-emergency operation, including peak shaving and non-emergency demand response if the peak shaving is done as part of a peak shaving (load management) program with the local distribution system operator. The EPA is proposing that the allowance be removed after April 16, 2017.

The EPA recognizes that the electricity grid achieves demand response and grid stability with and without the use of emergency stationary RICE. Alternative approaches include reductions or shifts in energy use, electricity storage, distribution automation, microgrids, natural gas-fired combustion turbines, and grid-connected distributed generation, including non-emergency engines and combined heat and power. Many of these approaches can provide additional benefits, such as additional energy efficiency, lower costs, shorter electricity outage times, and better integration of renewable energy generation into the electricity grid. Several studies project a significant future potential for using less energy in homes, buildings, and industry during times of peak electricity demand. The EPA seeks comment on how these investments may affect the number of hours which emergency stationary RICE are needed in the future to address electricity peak shaving and grid stability.

The EPA is also specifically seeking comment on the proposed criteria for expanding the current definition of remote areas of Alaska beyond areas that are not accessible by the FAHS. The EPA requests comment on whether the proposed system capacity limitation of 12 megawatts and the alternative 500 hour cap on annual usage (based on a 10-year rolling average) are the appropriate criteria for distinguishing the areas of Alaska that, while accessible by the FAHS, have the same unique challenges as the areas that are not accessible by the FAHS.

The EPA is also seeking information related to irrigation pump engine sizes. During the 2010 rulemaking, the EPA relied upon several sources to determine the potential number of irrigation engines that may be impacted by the rule. Using these sources, the EPA estimated that the vast majority of the existing irrigation engines were less than or equal to 300 HP. The EPA received several comments confirming this estimation. The EPA seeks comprehensive, nationwide information on the size of existing irrigation engines to either confirm or refute our understanding of existing irrigation engine sizes; this information will assist EPA in assessing the impacts of the 2010 rule on existing irrigation engines. The EPA has placed information in the docket for this rulemaking (see EPA–HQ–OAR–2008–0708–0495) on the number of irrigation engines provided by the U.S. Department of Agriculture after the 2010 RICE NESHAP amendments were finalized.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under section 3(f)(1) of Executive Order 12866 (58 FR 51735, October 4, 1993), this action is an ''economically significant regulatory action'' because it is likely to have an annual effect on the economy of $100 million or more. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and Executive Order 13563 (76 FR 3821, January 21, 2011), and any changes made in response to OMB recommendations have been documented in the docket for this action. In addition, the EPA prepared a RIA of the potential costs and benefits associated with this action.

A summary of the monetized benefits, compliance costs and net benefits for the 2010 rule with the proposed amendments to the stationary CI engines NESHAP at discount rates of 3 percent and 7 percent is in Table 4 of this preamble. The summary for stationary SI engines is included in Table 5 of this preamble. OMB Circular A–4 recommends that analysis of a change in an existing regulatory program use a baseline that assumes ''no change'' in the existing regulation. For purposes of this rule, however, the EPA has decided that it is appropriate to assume a baseline in which the original 2010 rule did not exist. The EPA feels that this baseline is appropriate because full implementation of the final rule has not taken place as of yet (it will take place in 2013). In addition, this assumption is consistent with the baseline definition applied in the recently proposed NESHAP for Industrial, Commercial, and Institutional Boilers (76 FR 80532) and NSPS for Commercial/Industrial Solid Waste Incineration Units (76 FR 80452).

TABLE 4—SUMMARY OF THE MONETIZED BENEFITS, COMPLIANCE COSTS AND NET BENEFITS FOR THE 2010 RULE WITH THE PROPOSED AMENDMENTS TO THE STATIONARY CI ENGINE NESHAP IN 2013

[Millions of 2010 dollars] [a]

	3-Percent discount rate	7-Percent discount rate
Total monetized benefits [b]	$770 to $1,900	$690 to $1,700.
Total Compliance Costs [c]	$373	$373.

TABLE 4—SUMMARY OF THE MONETIZED BENEFITS, COMPLIANCE COSTS AND NET BENEFITS FOR THE 2010 RULE WITH THE PROPOSED AMENDMENTS TO THE STATIONARY CI ENGINE NESHAP IN 2013—Continued

[Millions of 2010 dollars] [a]

	3-Percent discount rate	7-Percent discount rate
Net Benefits	$400 to $1,500	$320 to $1,300.
Non-Monetized Benefits	Health effects from exposure to HAP. Health effects from direct exposure to NO_2 and ozone. Health effects from $PM_{2.5}$ exposure from VOC. Ecosystem effects. Visibility impairment.	

[a] All estimates are for the implementation year (2013) and are rounded to two significant figures.
[b] The total monetized co-benefits reflect the human health benefits associated with reducing exposure to $PM_{2.5}$ through reductions of $PM_{2.5}$ precursors, such as NO_X and directly emitted $PM_{2.5}$. Co-benefits are shown as a range from Pope, *et al.* (2002) to Laden, *et al.* (2006). These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effects estimates by particle type.
[c] The engineering compliance costs are annualized using a 7-percent discount rate.

TABLE 5—SUMMARY OF THE MONETIZED BENEFITS, COMPLIANCE COSTS AND NET BENEFITS FOR THE 2010 RULE WITH THE PROPOSED AMENDMENTS TO THE STATIONARY SI ENGINE NESHAP IN 2013

[Millions of 2010 dollars] [a]

	3-Percent discount rate	7-Percent discount rate
Total monetized benefits [b]	$62 to $150	$55 to $140.
Total Compliance Costs [c]	$115	$115.
Net Benefits	$−53 to $35	$−60 to $25.
Non-Monetized Benefits	Health effects from exposure to HAP. Health effects from direct exposure to NO_2 and ozone. Health effects from $PM_{2.5}$ exposure from VOC. Ecosystem effects. Visibility impairment.	

[a] All estimates are for the implementation year (2013) and are rounded to two significant figures.
[b] The total monetized co-benefits reflect the human health benefits associated with reducing exposure to $PM_{2.5}$ through reductions of $PM_{2.5}$ precursors, such as NO_X and directly emitted $PM_{2.5}$. Co-benefits are shown as a range from Pope, *et al.* (2002) to Laden, *et al.* (2006). These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effects estimates by particle type.
[c] The engineering compliance costs are annualized using a 7-percent discount rate.

For more information on the cost-benefit analysis, please refer to the RIA for these proposed amendments, which is available in the docket.

B. Paperwork Reduction Act

This action does not impose any new information collection burden. This action does not impose an information collection burden because the agency is not requiring any additional recordkeeping, reporting, notification or other requirements in these proposed amendments. The changes being proposed in this action do not affect information collection, but include revisions to emission standards and other minor issues. However, the OMB has previously approved the information collection requirements contained in the existing regulations under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060–0548. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. The companies owning facilities with affected RICE can be grouped into small and large categories using SBA general size standard definitions. Size standards are based on industry classification codes (*i.e.,* North American Industrial Classification System, or NAICS) that each company uses to identify the industry or industries in which they operate. The SBA defines a small business in terms of the maximum employment, annual sales, or annual energy-generating capacity (for electricity generating units—EGUs) of the owning entity. These thresholds vary by industry and are evaluated based on the primary industry classification of the affected companies. In cases where companies are classified by multiple NAICS codes, the most conservative SBA definition (*i.e.,* the NAICS code with the highest employee or revenue size standard) was used.

As mentioned earlier in this preamble, facilities across several industries use affected CI and SI stationary RICE; therefore, a number of size standards are utilized in this analysis. For the 15 industries identified at the 6-digit NAICS code represented in this analysis, the employment size standard (where it applies) varies from 500 to 1,000 employees. The annual sales standard (where it applies) is as low as 0.75 million dollars and as high as 33.5 million dollars. In addition, for the electric power generation industry, the small business size standard is an ultimate parent entity defined as having a total electric output of 4 million megawatt-hours (MW-hr) in the previous fiscal year. The specific SBA size standard is identified for each affected industry within the industry profile to support this economic analysis.

After considering the economic impacts of this proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This certification is based on the economic impact of this action to all affected small entities across all industries affected. The percentage of small entities impacted by this proposal having annualized costs of greater than 1 percent of their sales is less than 2 percent according to the small entity analysis. We conclude that there is no significant economic impact on a substantial number of small entities for this rule.

For more information on the small entity impacts associated with the rule, please refer to the Economic Impact and Small Business Analyses in the public docket. These analyses can be found in the RIA for each of the rules affected by this action.

Although the proposed reconsideration rule would not have a significant economic impact on a substantial number of small entities, EPA nonetheless tried to reduce the impact of the rule on small entities. When developing the revised standards, EPA took special steps to ensure that the burdens imposed on small entities were minimal. EPA conducted several meetings with industry trade associations to discuss regulatory options and the corresponding burden on industry, such as recordkeeping and reporting. In addition, as mentioned earlier in this preamble, EPA proposes to reduce regulatory requirements for a variety of area sources affected under each of the RICE rules with amendments to the final RICE rules promulgated in 2010. 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

This 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 one year. The EPA is proposing management practices for certain existing engines located at area sources and is proposing amendments that will provide owners and operators with alternative and less expensive compliance demonstration methods. As a result of these proposed changes, the EPA anticipates a substantial reduction in the cost burden associated with this rule. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. The changes being proposed in this action by the agency will mostly affect stationary engine owners and operators and will not affect small governments. The proposed amendments will lead to a reduction in the cost burden.

E. Executive Order 13132: Federalism

This action 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 action 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 action. In the spirit of Executive Order 13132 and consistent with the EPA policy to promote communications between the EPA and state and local governments, the EPA specifically solicits comment on this proposed action from state and local officials.

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). 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 action. The EPA specifically solicits additional comment on this proposed action from tribal officials.

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

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) 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 action is not subject to Executive Order 13045 because it is based solely on technology performance.

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

This action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action reduces the burden of the rule on owners and operators of stationary engines by providing less burdensome compliance demonstration methods to owners and operators and greater flexibility in the operation of emergency engines. As a result of these proposed changes, the EPA anticipates a substantial reduction in the cost burden associated with this rule.

I. National Technology Transfer and Advancement Act

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

This proposed rulemaking involves technical standards. The EPA proposes to use EPA Method 25A of 40 CFR part 60, appendix A. While the agency identified two voluntary consensus standards as being potentially applicable, we do not propose to use it in this rulemaking. The two candidate voluntary consensus standards, ISO 14965:2000(E) and EN 12619 (1999), identified would not be practical due to lack of equivalency, documentation, validation data and other important technical and policy considerations. The search and review results have been documented and are placed in the docket for the proposed rule.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

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

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

The EPA has concluded that it is not feasible to determine whether there would be disproportionately high and adverse human health or environmental effects on minority, low income or indigenous populations from the reconsideration of this final rule, as the EPA does not have specific information about the location of the stationary RICE affected by this rule.

List of Subjects

40 CFR Part 60

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

40 CFR Part 63

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

Dated: May 22, 2012.

Lisa P. Jackson,

Administrator.

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

PART 60—[AMENDED]

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

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

Subpart IIII—[Amended]

1. Section 60.4207 is amended by revising paragraph (b) to read as follows:

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

* * * * *

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

* * * * *

2. Section 60.4211 is amended by revising paragraph (f) to read as follows:

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

* * * * *

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. An engine that exceeds the calendar year limitations on non-emergency operation will be considered a non-emergency engine and subject to the requirements for non-emergency engines for the remaining life of the engine.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the regional transmission authority or equivalent balancing authority and transmission operator has declared an Energy Emergency Alert Level 2 (EEA Level 2) as defined in the North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergencies.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to otherwise supply power as part of a financial arrangement with another entity.

* * * * *

3. Section 60.4219 is amended by revising the definition of ''Emergency stationary internal combustion engine'' to read as follows:

§ 60.4219 What definitions apply to this subpart?

* * * * *

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. 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.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4211(f)(2)(ii) or (iii).

* * * * *

Subpart JJJJ—[Amended]

4. Section 60.4231 is amended by revising paragraphs (b) through (d) to read as follows:

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

* * * * *

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasoline and that are manufactured on or after the applicable date in § 60.4230(a)(2), or manufactured on or after the applicable date in § 60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that use gasoline and that are manufactured on or after the applicable date in § 60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. 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) that use gasoline 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) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in § 60.4230(a)(2), or manufactured on or after the applicable date in § 60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in § 60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. 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 that are rich burn engines that use LPG 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 who choose to certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP (except gasoline and rich burn engines that use LPG), must certify those engines to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. 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 (except gasoline and rich burn engines that use LPG) to the certification emission standards for new nonroad SI engines in 40 CFR part 90. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP.

* * * * *

5. Section 60.4243 is amended by revising paragraph (d) to read as follows:

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

* * * * *

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. An engine that exceeds the calendar year limitations on non-emergency operation will be considered a non-emergency engine and subject to the requirements for non-emergency engines for the remaining life of the engine.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the regional transmission authority or equivalent balancing authority and transmission operator has declared an Energy Emergency Alert Level 2 (EEA Level 2) as defined in the North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergencies.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to otherwise supply power as part of a financial arrangement with another entity.

* * * * *

6. Section 60.4248 is amended by revising the definition of ''Emergency stationary internal combustion engine'' to read as follows:

§ 60.4248 What definitions apply to this subpart?

* * * * *

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4243(d), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. 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.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4243(d).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4243(d)(2)(ii) or (iii).

* * * * *

7. Table 2 to subpart JJJJ of part 60 is revised to read as follows:

As stated in § 60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

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

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to § 60.4244.	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].	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location.	(2) Method 3, 3A, or 3B [b] of 40 CFR part 60, appendix A or ASTM Method D6522–00 (2005) [a].	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_X concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust.	(3) Method 2 or 19 of 40 CFR part 60.	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and.	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for NO_X concentration.

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

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure NO_X at the exhaust of the stationary internal combustion engine.	(5) Method 7E of 40 CFR part 60, appendix A, Method D6522–00 (2005) [a], Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(d) 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 or ASTM Method D6522–00 (2005) [a].	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location.	(2) Method 3, 3A, or 3B [b] of 40 CFR part 60, appendix A or ASTM Method D6522–00 (2005) [a].	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust.	(3) Method 2 or 19 of 40 CFR part 60.	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and.	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
		v. Measure CO at the exhaust of the stationary internal combustion engine.	(5) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005) [a], Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of VOC 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. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location.	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A or ASTM Method D6522–00 (2005) [a].	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust.	(3) Method 2 or 19 of 40 CFR part 60.	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and.	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.

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

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure VOC at the exhaust of the stationary internal combustion engine.	(5) Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A [c d], Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(d) Results of this test consist of the average of the three 1-hour or longer runs.

[a] ASTM D6522–00 is incorporated by reference; see 40 CFR 60.17. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

[b] You may use ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses, for measuring the O_2 content of the exhaust gas as an alternative to EPA Method 3B.

[c] You may use EPA Method 18 of 40 CFR part 60, appendix A, provided that you conduct an adequate presurvey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (*http://www.epa.gov/ttn/emc/prelim/otm11.pdf*).

[d] You may use ASTM D6420–99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic.

PART 63—[AMENDED]

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

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

Subpart ZZZZ—[Amended]

9. Section 63.6585 is amended by adding paragraph (f) to read as follows:

§ 63.6585 Am I subject to this subpart?

* * * * *

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in § 63.6675, which includes operating according to the provisions specified in § 63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions.

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions.

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

§ 63.6590 [Amended]

10. Section 63.6590 is amended by removing paragraphs (b)(3)(vi) through (viii).

11. Section 63.6595 is amended by revising paragraph (a)(1) to read as follows:

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

(a) * * *

(1) If you have an existing stationary RICE, excluding existing non-emergency 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 applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

* * * * *

12. Section 63.6602 is revised to read as follows:

§ 63.6602 What emission limitations and other requirements must I meet if I 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?

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, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

13. Section 63.6603 is amended by:

a. Revising the section heading;

b. Revising paragraph (b); and

c. Adding paragraphs (c) through (e) to read as follows:

§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

* * * * *

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (b)(2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (b)(2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs

(b)(2)(i), (b)(2)(ii), and (b)(2)(iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy and is used less than 500 hrs per year on a 10 year rolling average.

(c) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in § 63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in § 63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kW) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(e) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in § 63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in § 63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in § 63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within one year of the evaluation.

14. Section 63.6604 is revised to read as follows:

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2) are exempt from the requirements of this section.

15. Section 63.6605 is amended by revising paragraph (a) to read as follows:

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

* * * * *

16. Section 63.6620 is amended by revising paragraphs (b) and (e) to read as follows:

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

* * * * *

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

* * * * *

(e)(1) You must use Equation 1 of this section to

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad (Eq.\ 1)$$

determine compliance with the percent reduction requirement:

Where:

C_i = concentration of CO, THC, or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant

concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19,

$$F_O = \frac{0.209\ F_d}{F_C} \quad (Eq.\ 2)$$

Section 5.2, and the following equation:

Where:

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

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

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

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J (dscf/10^6 Btu)

(ii) Calculate the CO_2 correction factor for correcting

$$X_{CO2} = \frac{5.9}{F_O} \quad (Eq.\ 3)$$

measurement data to 15 percent oxygen, as follows:

Where:

X_{co2} = CO_2 correction factor, percent.

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

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq.\ 4)$$

Where:

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

* * * * *

17. Section 63.6625 is amended by:

a. Revising the introductory text of paragraph (a);

b. Revising the introductory text of paragraph (b);

c. Revising paragraph (e)(6); and

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

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

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device. * * *

* * * * *

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. * * *

* * * * *

(e) * * *

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

* * * * *

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2) do not have to meet the requirements of paragraph (g) of this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

* * * * *

18. Section 63.6630 is amended by:

a. Revising the section heading;

b. Revising paragraph (a);

c. Adding paragraph (d); and

d. Adding paragraph (e) to read as follows:

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

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

* * * * *

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

19. Section 63.6640 is amended by:

a. Amending the section heading;

b. Revising paragraph (a);

c. Revising paragraph (c); and

d. Revising paragraph (f) to read as follows:

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

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

* * * * *

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (*e.g.,* repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

* * * * *

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. An engine that exceeds the calendar year limitations on non-emergency operation will be considered a non-emergency engine and subject to the requirements for non-emergency engines for the remaining life of the engine.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the regional transmission authority or equivalent balancing authority and transmission operator has declared an Energy Emergency Alert Level 2 (EEA Level 2) as defined in the North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergencies.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Existing emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section.

(i) Prior to April 16, 2017, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if engines is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) On or after April 16, 2017, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to otherwise supply power as part of a financial arrangement with another entity.

* * * * *

20. Section 63.6645 is amended by adding a new paragraph (i) to read as follows:

§ 63.6645 What notifications must I submit and when?

* * * * *

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in § 63.6603(c), you must submit a notification by March 3, 2013, stating that you intend to use the provision in § 63.6603(c) and identifying the state or local regulation that the engine is subject to.

21. Section 63.6675 is amended by:

a. Adding in alphabetical order the definition of *Alaska Railbelt Grid;*

b. Revising the definition of *Emergency stationary RICE;* and

c. Adding in alphabetical order the definition of *Remote stationary RICE* to read as follows.

§ 63.6675 What definitions apply to this subpart?

* * * * *

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

* * * * *

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. 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.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(2)(ii) or (iii) and § 63.6640(f)(4)(i).

* * * * *

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 m) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

* * * * *

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

As stated in §§ 63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

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

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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	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

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

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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;	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.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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 existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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.

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

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

As stated in §§ 63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

TABLE 2b TO SUBPART ZZZZ OF PART 63—OPERATING LIMITATIONS FOR NEW AND RECONSTRUCTED 2SLB AND CI STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS, NEW AND RECONSTRUCTED 4SLB STATIONARY RICE ≥250 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS, EXISTING CI STATIONARY RICE >500 HP, AND EXISTING 4SLB STATIONARY RICE >500 HP LOCATED AT AN AREA SOURCE OF HAP EMISSIONS

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions 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.[1]
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO 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 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.[1]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst and existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	Comply with any operating limitations approved by the Administrator.

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

24. Table 2c to Subpart ZZZZ of Part 63 is revised to read as follows:

As stated in §§ 63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

TABLE 2c TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING COMPRESSION IGNITION STATIONARY RICE LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS AND EXISTING SPARK IGNITION STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP.	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100 ≤HP≤300 HP.	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500.	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP.	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE.	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP.	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	

TABLE 2c TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING COMPRESSION IGNITION STATIONARY RICE LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS AND EXISTING SPARK IGNITION STATIONARY RICE >500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS—Continued

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2.	

[1] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[2] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

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

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

TABLE 2d TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING STATIONARY RICE LOCATED AT AREA SOURCES OF HAP EMISSIONS

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP.	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; [1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300 < HP ≤ 500.	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP.	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; [1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

TABLE 2d TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING STATIONARY RICE LOCATED AT AREA SOURCES OF HAP EMISSIONS—Continued

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; [1] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE.	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; [1] b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP; non-emergency, non-black start 4SLB remote stationary RICE >500 HP.	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; [1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year.	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP; non-emergency, non-black start 4SRB remote stationary RICE >500 HP.	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; [1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year.	Install NSCR to reduce HAP emissions from the stationary RICE.	
11. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; [1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

26. Table 3 to Subpart ZZZZ of Part 63 is revised to read as follows:

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

TABLE 3 TO SUBPART ZZZZ OF PART 63—SUBSEQUENT PERFORMANCE TESTS

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources.	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually [1].
2. 4SRB stationary RICE ≥5,000 HP located at major sources.	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually [1].
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250 ≤ HP ≤500 located at major sources.	Limit the concentration of formaldehyde in the stationary RICE exhaust.	Conduct subsequent performance tests semiannually [1].
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE.	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hrs or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE.	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hrs or 5 years, whichever comes first.

[1] 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.

27. Table 4 to Subpart ZZZZ of Part 63 is revised to read as follows:

As stated in §§ 63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

TABLE 4 TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following 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) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005) [a] (incorporated by reference, see § 63.14).	(a) 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) ASTM D6522–00 (2005) [a,b] (incorporated by reference, see § 63.14) or Method 10 of 40 CFR part 60, appendix A.	(a) The CO concentration must be at 15 percent O_2, dry basis.

TABLE 4 TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following 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 and outlet 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 or THC 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 or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formalde-hyde 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 [c], 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.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device.	(1) Method 25A of 40 CFR part 60, appendix A.	(a) THC 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.
3. Stationary RICE	a. limit the concentration of formalde-hyde or CO 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 the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the station-ary 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 or CO concentration.
		iv. Measure formalde-hyde at the exhaust of the station-ary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03 [c], 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.

TABLE 4 TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		v. measure CO at the exhaust of the station-ary RICE.	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005) [a], Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.	(a) CO 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.

[a] 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. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

[b] You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

[c] 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.

28. Table 5 to Subpart ZZZZ of Part 63 is revised to read as follows:

As stated in §§ 63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

TABLE 5 TO SUBPART ZZZZ OF PART 63—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP.	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. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP.	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS.	i. The average CO concentration determined from the initial performance test is less than or equal to the CO 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.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP.	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.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP.	a. Limit the concentration of CO, and not using oxidation catalyst.	i. The average CO concentration determined from the initial performance test is less than or equal to the CO 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.

TABLE 5 TO SUBPART ZZZZ OF PART 63—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS—Continued

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP.	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.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP.	a. Limit the concentration of CO, and using a CEMS.	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at the 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 concentration of CO calculated using § 63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP.	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, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; 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.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP.	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.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP.	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

TABLE 5 TO SUBPART ZZZZ OF PART 63—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS—Continued

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP.	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.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300≤HP≤500 located at an area source of HAP.	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300≤HP≤500 located at an area source of HAP.	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust.	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year.	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2. ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year.	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, or the average reduction of emissions of THC is 30 percent or more. ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

29. Table 6 to Subpart ZZZZ of Part 63 is revised to read as follows:

As stated in § 63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

TABLE 6 TO SUBPART ZZZZ OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS, OPERATING LIMITATIONS, WORK PRACTICES, AND MANAGEMENT PRACTICES

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP.	a. Reduce CO emissions and 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 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. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP.	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. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP.	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS.	i. Collecting the monitoring data according to § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration 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, or that the emission remain at or below the CO concentration limit; 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. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP.	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. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP.	a. Reduce formaldehyde emissions 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.

TABLE 6 TO SUBPART ZZZZ OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS, OPERATING LIMITATIONS, WORK PRACTICES, AND MANAGEMENT PRACTICES—Continued

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP.	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP.	a. 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 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. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP.	a. 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 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.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE.	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

TABLE 6 TO SUBPART ZZZZ OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS, OPERATING LIMITATIONS, WORK PRACTICES, AND MANAGEMENT PRACTICES—Continued

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE.	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst.	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; 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.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE.	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst.	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; 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.
12. Existing limited use CI stationary RICE >500 HP.	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst.	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; 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.
13. Existing limited use CI stationary RICE >500 HP.	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst.	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and

TABLE 6 TO SUBPART ZZZZ OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS, OPERATING LIMITATIONS, WORK PRACTICES, AND MANAGEMENT PRACTICES—Continued

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		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.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year.	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year.	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

[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.

30. Table 7 to Subpart ZZZZ of Part 63 is revised to read as follows:

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

TABLE 7 TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR REPORTS

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP.	Compliance report	a. 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.	i. Semiannually according to the requirements in § 63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in § 63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in § 63.6650(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	i. Semiannually according to the requirements in § 63.6650(b).
		c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4).	i. Semiannually according to the requirements in § 63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.	Report	a. 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.	i. Annually, according to the requirements in § 63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year.	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in § 63.6650(b)(1)–(5).

31. Appendix A to Subpart ZZZZ of Part 63 is added to read as follows:

Appendix A

Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations from Certain Engines

1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630–08–0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	7782–44–7	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (*e.g.,* heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 Definitions

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: Pre-sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (*i.e.,* readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ± 5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O_2 Calibration Gas Concentration. Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2. When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (*e.g.,* CO_2).

8.0 Sample Collection and Analysis

8.1 Selection of Sampling Sites

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (*e.g.,* within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (*e.g.,* turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (*e.g.,* within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the ''sample conditioning phase'' once per minute until constant readings are obtained. Then begin the ''measurement data phase'' and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the ''refresh phase'' by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the ''measurement data phase'' readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ± 10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ± 3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (*e.g.,* at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ± 3 percent of the up-scale gas value or ± 1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ± 0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (*e.g.,* at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this ''sample conditioning phase'' once per minute until readings are constant for at least two minutes. Then begin the ''measurement data phase'' and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the ''refresh phase'' by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas.

Introduce all gases to flow through the entire sample handling system (*i.e.,* at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the ''measurement data phase'' readings from the reported standard gas value must be less than or equal to ± 5 percent or ± 1 ppm for CO or ± 0.5 percent O_2, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single ''measurement data phase'' reading must be less than or equal to ± 2 percent or ± 1 ppm for CO or ± 0.5 percent O_2, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the ''measurement data phase''.

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the ''measurement data phase''. The maximum allowable deviation from the mean for each of the individual readings is ± 2 percent, or ± 1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ± 2 percent or ± 1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO_2 interference response should be less than or equal to ± 5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within five days prior to each field sampling program. If a field sampling program lasts longer than five days, repeat this check every five days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average ''measurement data phase'' CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ± 3 percent or ± 1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 Pollution Prevention (Reserved)

15.0 Waste Management (Reserved)

16.0 Alternative Procedures (Reserved)

17.0 References

(1) ''Development of an Electrochemical Cell Emission Analyzer Test Protocol'', Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) ''Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers'', EMC Conditional Test Protocol 30 (CTM–30), Gas Research Institute Protocol GRI–96/0008, Revision 7, October 13, 1997.

(3) ''ICAC Test Protocol for Periodic Monitoring'', EMC Conditional Test Protocol 34 (CTM–034), The Institute of Clean Air Companies, September 8, 1999.

(4) ''Code of Federal Regulations'', Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1–4; 10.

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Table 1: Appendix A - Sampling Run Data.

Facility________________ Engine I.D.______________ Date_________

Run Type: (X)	(__) Pre-Sample Calibration	(__) Stack Gas Sample	(__) Post-Sample Cal. Check	(__) Repeatability Check

Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow-Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
"											
"											
"											
"											
Measurement Data Phase											
"											
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Mean											
Refresh Phase											
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