ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2014-0866; FRL-9935-90-OAR]

RIN 2060-AS43

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing amendments to the standards of performance for stationary compression ignition (CI) internal combustion engines to allow manufacturers to design the engines so that operators can temporarily override performance inducements related to the emission control system for stationary CI internal combustion engines operating during emergency situations where the operation of the engine or equipment is needed to protect human life, and to require compliance with Tier 1 emission standards during such emergencies. The EPA is also proposing to amend the standards of performance for certain stationary CI internal combustion engines located in remote areas of Alaska.

DATES: Comments must be received on or before **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Public hearing. If anyone contacts us requesting to speak at a public hearing by **[INSERT DATE 7 DAYS AFTER DATE OF PUBLICATION**

IN THE FEDERAL REGISTER], a public hearing will be held on **[INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. If you are interested in attending the public hearing, contact Ms. Melanie King at (919) 541-2469 or king.melanie@epa.gov to verify that a hearing will be held.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2014-0866, to the *Federal eRulemaking Portal*: http://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or withdrawn. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

The EPA requests that you also submit a separate copy of

your comments to the contact person identified below (see **FOR FURTHER INFORMATION CONTACT**). If the comment includes information you consider to be CBI or otherwise protected, you should send a copy of the comment that does not contain the information claimed as CBI or otherwise protected.

Docket: All documents in the docket are listed in the http://www.regulations.gov index. The EPA also relies on materials in Docket ID Nos. EPA-HQ-OAR-2008-0708, EPA-HQ-OAR-2010-0295, and EPA-HQ-OAR-2011-1032, and incorporates those dockets into the record for this proposed rule.

Although listed in the index, some information is not publicly available (e.g., CBI or other information whose disclosure is restricted by statute). Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in http://www.regulations.gov or in hard copy at the EPA Docket Center, EPA WJC West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding federal 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. Visit the EPA Docket Center homepage at http://www.epa.gov/epahome/dockets.htm for additional information about the EPA's public docket.

In addition to being available in the docket, an electronic copy of this proposed rule will be available on the World Wide Web (WWW). Following signature, a copy of this proposed rule will be posted at the following address: http://www.epa.gov/ttn/atw/icengines/.

Public hearing: If anyone contacts the EPA requesting a public hearing by **[INSERT DATE 7 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, the public hearing will be held on **[INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** at the EPA's campus at 109 T.W. Alexander Drive, Research Triangle Park, North Carolina. Please contact Ms. Melanie King at (919) 541-2469 or at king.melanie@epa.gov to register to speak at the hearing or to inquire as to whether or not a hearing will be held.

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:

Organization of this document. The information presented in this preamble is organized as follows:

I. General Background

I. General Background

On July 11, 2006, the EPA promulgated standards of performance for stationary CI internal combustion engines (71 FR 39154). These standards, known as new source performance standards (NSPS), implement section 111(b) of the Clean Air Act (CAA), and are issued for categories of sources that cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare. The standards apply to new stationary sources of emissions, i.e., sources whose construction, reconstruction, or modification

begins after a standard for those sources is proposed. The NSPS for stationary CI internal combustion engines established limits on emissions of particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO) and non-methane hydrocarbons (NMHC). The emission standards are generally modeled after the EPA's standards for nonroad and marine diesel engines. The nonroad CI engine standards are phased in over several years and have Tiers with increasing levels of stringency. The engine model year in which the Tiers take effect varies for different size ranges of engines. The Tier 4 final standards for new stationary non-emergency and nonroad CI engines generally begin with either the 2014 or 2015 model year.

In 2011, the EPA finalized revisions to the NSPS for stationary CI engines that amended the standards for engines with a displacement greater than 10 liters per cylinder, and also for engines located in remote areas of Alaska (76 FR 37954). In this action, the EPA is proposing amendments to the NSPS regarding performance inducements for Tier 4 engines and the criteria for defining remote areas of Alaska. The proposed amendments are discussed below.

II. Temporary Override of Inducements in Emergency Situations

A. Background

Many Tier 4 final engines are equipped by the engine manufacturer with selective catalytic reduction (SCR) to reduce

emissions of NOx. The consumable reactant in an SCR system is typically supplied as a solution of urea in water known as diesel exhaust fluid (DEF). Engines equipped with SCR generally include controls that limit the function of the engines if they are operated without DEF, or if the engine's electronic control module cannot otherwise confirm that the SCR system is properly operating. Such controls are generally called "inducements" because they induce the operator to properly maintain the SCR emission control system. In normal circumstances, if inducements begin, the engine operator is expected to perform any necessary maintenance to avoid shutdown. Manufacturers as well as owners and operators of nonroad and stationary CI Tier 4 certified engines have raised concerns regarding the inducements being triggered and engines shutting down during emergency situations. Triggers could include a temporary supply shortage of DEF, a freeze warning, a blocked DEF hose, or a disconnected or faulty DEF pump or sensor. These inducements can be triggered because of an actual emission problem (such as a blocked DEF line or an empty DEF tank), or because of a sensor problem that reports a false positive problem even though the emission controls are still functioning properly. While the EPA is confident that DEF is now widely available and easily obtainable across the United States, the EPA is concerned that in emergency circumstances, such as the aftermath of storms like Hurricane Sandy or

Hurricane Katrina, there may be a possibility of temporary disruptions in DEF supply, disruptions in communications between operators and service centers, or delays in response time for engine repair service. In an emergency situation, allowing inducements to impact engine performance may endanger human lives for engines that are providing life-saving emergency service, such as engines providing emergency power for a hospital. As an example, the Johns Hopkins Health System indicated that the availability of emergency power "can be the difference between life and death for critically ill patients. Disruption of emergency power for any reason could have catastrophic results for patients in surgery, for patients on respirators, and for patients receiving medical gases, to name a few." (See Docket ID No. EPA-HQ-OAR-2014-0866.)

The EPA's existing nonroad and stationary engine compliance regulations in 40 CFR 1068.101(b)(1)(ii) allow operators to temporarily disable or remove emission controls to address emergency situations, with a limited exemption from the prohibition that normally applies for tampering with certified engines.[1] However, until recently, the regulations did not allow

[1] "This [tampering] prohibition does not apply in any of the following situations: . . . (ii) You need to modify the engine/equipment to respond to a temporary emergency and you restore it to proper functioning as soon as possible." 40 CFR 1068.101(b)(1)(ii).

manufacturers to design the emission controls to be disabled or removed in emergency situations. With modern electronically controlled engines, many emission controls are integrated into the engine's control software, and there is no way for the operator to selectively disable emission control software, while maintaining engine function. In order to permit engine manufacturers to design the emission controls to be disabled or removed in emergency situations, the EPA amended the emission standards for nonroad CI engines to allow manufacturers of nonroad CI engines to give operators the means to temporarily override inducements while operating in emergency situations (79 FR 46356, August 8, 2014). At that time, the EPA indicated that the amendments did not apply to stationary CI engines. Engine manufacturers and owners and operators of stationary CI engines have indicated that it would be appropriate to extend the provisions to stationary CI engines, since they can also be used in emergency situations, and many engines are dual-certified for both nonroad and stationary use. To address concerns about stationary CI engines shutting down during emergency situations and endangering human lives, the EPA is proposing in this action to allow manufacturers of stationary CI engines certified to the Tier 4 standards to give operators the means to temporarily override inducements while operating in qualified emergency situations. The EPA is also proposing to require engine

operators to meet the Tier 1 emission standard in 40 CFR 89.112 that applies to the engine's rated power during the qualified emergency situation. The specific amendments the EPA is proposing are discussed in more detail below. If adopted, these provisions will make available stationary engines that will allow operators to use the flexibility already provided under 40 CFR 1068.101(b)(1)(ii) to ensure that emission controls will not impede the engine from providing life-saving emergency service. The flexibility the EPA is adopting is very narrow and contains several provisions to ensure the need for the relief.

B. Proposed Amendments

As discussed previously, on August 8, 2014, the EPA promulgated provisions allowing manufacturers of nonroad engines certified to the emission standards in 40 CFR part 1039 to give operators the means to temporarily override emission control inducements while operating in emergency situations, such as those where operation of the engine is needed to protect human life (79 FR 46356). These provisions, which are codified in 40 CFR 1039.665, allow for auxiliary emission control devices (AECDs) that help to ensure proper function of engines in emergency situations. AECDs are any element of design that senses temperature, motive speed, engine revolutions per minute, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation

of any part of the emission control system. The provisions of 40 CFR 1039.665 allow the engine manufacturer to include a dormant feature in the engine's control software that could be activated to override emission control inducements. In this action, the EPA is proposing to adopt those same provisions for stationary CI engines certified to the standards in 40 CFR part 1039 and used in qualified emergency situations. It is important to emphasize that the EPA is confident that Tier 4 engines will function properly in the vast majority of emergency situations. Thus, the EPA expects that AECDs allowed under this proposed provision will rarely be activated. The EPA is proposing this provision merely as a precaution to ensure that stationary CI engines can continue to operate in emergencies.

The proposed amendments allow engine manufacturers to design into their stationary CI engines a dormant AECD that can be activated for up to 120 engine hours per use during a qualified emergency situation to prevent emission controls from interfering with engine operation. The EPA is proposing that engine manufacturers can offer, and operators can request, re-activations of the AECD for additional time in increments of 120 engine hours in cases of a prolonged emergency situation. During the emergency situation, the engine must meet the Tier 1 emission standard in 40 CFR 89.112 that applies to the engine's rated power. Operators activating the AECD will be required to

report the incident to the engine manufacturers, and engine manufacturers will submit an annual report to the EPA summarizing the use of these AECDs during the prior year. These proposed amendments are discussed in more detail below.

1. Definition of Qualified Emergency Situation

The EPA is proposing to use the definition of qualified emergency situation established in the August 8, 2014, amendments for nonroad engines. This definition is found in the introductory text to 40 CFR 1039.665, and specifies that a qualified emergency situation is one in which the condition of an engine's emission controls poses a significant direct or indirect risk to human life. An example of a direct risk would be an emission control condition that inhibits the performance of an engine being used to rescue a person from a life-threatening situation (for example, providing power to a medical facility during an emergency situation). An example of an indirect risk would be an emission control condition that inhibits the performance of an engine being used to provide electrical power to a data center that routes “911” emergency response telecommunications.

2. Basic AECD Criteria

Section 1039.665 specifies provisions allowing for AECDs that are necessary to ensure proper function of engines and equipment in emergency situations. It also includes specific

criteria that the engine manufacturer must meet to ensure that any adverse environmental impacts are minimized. These criteria are:

• The AECD must be designed so that it cannot be activated more than once without the specific permission of the certificate holder. Reactivation of the AECD must require the input of a temporary code or equivalent security feature.

• The AECD must become inactive within 120 engine hours of becoming active. The engine must also include a feature that allows the operator to deactivate the AECD once the emergency is over.

• The manufacturer must show that the AECD deactivates emission controls (such as inducement strategies) only to the extent necessary to address the expected emergency situation.

• The engine controls must be configured to record in non-volatile electronic memory the total number of activations of the AECD for each engine.

• The manufacturer must take appropriate additional steps to induce operators to report AECD activation and request resetting of the AECD. The EPA recommends including one or more persistent visible and/or audible alarms that are active from the point when the AECD is activated to the point when it is reset.

• The manufacturer must provide purchasers with

instructions on how to activate the AECD in emergency situations, as well as information about penalties for abuse.

3. Emission Standards During Qualified Emergency Situations

The EPA is proposing to require stationary CI engines to meet different emission standards for the very narrow period of operation where there is an emergency situation with a risk to human life and the owner or operator is warned that the inducement is about to occur. The EPA is proposing that the emission standards that apply when the AECD is activated during the qualified emergency situation are the Tier 1 standards in 40 CFR 89.112. Engine manufacturers indicated that meeting the Tier 2 or 3 standards in 40 CFR 89.112 is not feasible because the base engine used in Tier 4 configurations does not have exhaust gas recirculation (EGR), which is the engine design technology used to meet the Tier 2 and 3 standards. The EGR is not needed for Tier 4 because NOx is controlled by the SCR.[2] The Tier 1 requirement applies only when there is a qualified emergency situation and bypass of inducements is necessary to ensure continued operation of the engine. Once the emergency situation has ended and the AECD is deactivated, the engine must comply with the otherwise applicable emission standard specified in 40 CFR 60.4202. Engine manufacturers must provide data

[2] See Docket Id No. EPA-HQ-OAR-2014-0866.

demonstrating that the engine complies with the Tier 1 standard when the AECD is activated when applying for certification of an engine equipped with an AECD.

4. Approval, Recordkeeping and Reporting for Engine Manufacturers

Manufacturers may ask for approval of the use of emergency AECDs at any time; however, the EPA encourages manufacturers to obtain preliminary approval before submitting an application for certification. Otherwise, the EPA's review of the AECD, which may include many unique features, may delay the approval of the application for certification.

The manufacturer is required to keep records to document the use of emergency AECDs until the end of the calendar year 5 years after the onset of the relevant emergency situation. The manufacturer must submit an annual compliance report to the EPA within 90 calendar days of the end of each calendar year in which it authorizes use of an AECD. The annual report must include a description of each AECD activation and copies of the reports submitted by owners or operators (or statements that an owner or operator did not submit a report, to the extent of the manufacturer's knowledge). If an owner or operator fails to report the use of an emergency AECD to the manufacturer, the manufacturer, to the extent it has been made aware of the AECD activation, must send written notification to the operator that

failure to meet the submission requirements may subject the operator to penalties.

5. Engine Owner or Operator Requirements

Owners or operators who purchase engines with this dormant feature will receive instructions from the engine manufacturer on how to activate the AECD in qualified emergency situations, as well as information about penalties for abuse. The EPA would consider appropriate use of this feature to be during a situation where operation of a stationary CI engine is needed to protect human life (or where impaired operation poses a significant direct or indirect risk to human life), and temporarily overriding emission controls enables full operation of the equipment. The EPA is adopting this provision to give operators the means to obtain short-term relief one time without the need to contact the engine manufacturer or the EPA. In a qualified emergency situation, delaying the activation to obtain approval could put lives at risk, and would be unacceptable. However, the EPA retains the authority to evaluate, after the fact, whether it was reasonable to judge that there was a significant risk to human life to justify the activation of the AECD. Where the EPA determines that it was not reasonable to judge (1) that there was a significant risk to human life; or (2) that the emission control strategy was curtailing the ability of the engine to perform, the owner or operator may be

subject to penalties for tampering with emission controls. The owner or operator requirements also include a specific prohibition on operating the engine with the AECD beyond the time reasonably needed for such operation. The owner or operator may also be subject to penalties for tampering if they continue to operate the engine with the AECD once the emergency situation has ended or the problem causing the emission control strategy to interfere with the performance of the engine has been or can reasonably be fixed. Nevertheless, the EPA will consider the totality of the circumstances when assessing penalties, and retain discretion to reduce penalties where the EPA determines that an owner or operator acted in good faith.

The owner or operator must send a written report to the engine manufacturer within 60 calendar days after activating an emergency AECD. If any consecutive reactivations occur, this report is still due 60 calendar days from the first activation. The report must include:

• Contact name, mail and email addresses, and telephone number for the responsible company or entity.

• A description of the emergency situation, the location of the engine during the emergency, and the contact information for an official who can verify the emergency situation (such as a county sheriff, fire marshal, or hospital administrator).

• The reason for AECD activation during the emergency

situation, such as the lack of DEF, or the failure of an emission-related sensor when the engine was needed to respond to an emergency situation.

• The engine's serial number (or equivalent).

• A description of the extent and duration of the engine operation while the AECD was active, including a statement describing whether or not the AECD was manually deactivated after the emergency situation ended.

Paragraph 1039.665(g) specifies that failure to provide this information to the engine manufacturer within the deadline is improper use of the AECD and is prohibited.

III. Remote Areas of Alaska

A. Background

1. Original Request from the State of Alaska

The 2006 final NSPS for CI internal combustion engines included a provision that allowed the state of Alaska to submit for EPA approval through rulemaking process an alternative plan for implementing the requirements of the NSPS for public-sector electric utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System (FAHS). The alternative plan was required to be based on the requirements of section 111 of the CAA, including any increased risks to human health and the environment, and was also required to be based on the unique circumstances related to remote power generation,

climatic conditions, and serious economic impacts resulting from implementation of the final NSPS.

The EPA communicated with officials from the state of Alaska on several occasions following the promulgation of the 2006 final rule. On October 31, 2008, the EPA received Alaska's request for several revisions to the NSPS as it pertained to engines located in the remote part of Alaska not served by the FAHS.[3] After reviewing the information provided by the state of Alaska, the EPA agreed that the circumstances in remote Alaska required special rules. On June 28, 2011, the EPA promulgated several amendments for engines used in remote Alaska (76 FR 37954). The amendments of relevance for this action are as follows:

• Exempting all pre-2014 model year engines from diesel fuel sulfur requirements;

• Allowing owners and operators of stationary CI engines located in remote areas of Alaska to use engines certified to marine engine standards, rather than land-based nonroad engine standards;

• Removing requirements to meet emission standards that would necessitate the use of aftertreatment devices for NO_x, in particular, SCR, for engines used in remote Alaska (emission

[3] Docket item No. EPA-HQ-OAR-2010-0295-0012.

standards that are not based on the use of aftertreatment devices for NO_x do apply);

• Removing requirements to meet emission standards that would necessitate the use of aftertreatment devices for PM until the 2014 model year; and

• Allowing the blending of used lubricating oil, in volumes of up to 1.75 percent of the total fuel, if the sulfur content of the used lubricating oil is less than 200 parts per million (ppm) and the used lubricating oil is "on-spec," i.e., it meets the on-specification levels and properties of 40 CFR 279.11.

In support of its October 31, 2008, request, the state of Alaska noted that remote communities in Alaska that are not accessible by the FAHS rely on diesel engines and fuel for electricity. These communities are scattered over long distances in remote areas and are not connected to population centers by road or power grid. These communities are located in the most severe arctic environments in the United States.

The state of Alaska noted that remote villages in Alaska use combined heat and power cogeneration plants, which are vital to their economy, given the high cost of fuel and the substantial need for heat in that climate. Heat recovery systems are used with diesel engines in remote communities to provide heat to community facilities and schools. Marine-jacketed diesel engines are used wherever possible because of their superior

heat recovery and thermal efficiency. The state of Alaska indicated that they have noticed great reductions in heat recovery when using Tier 3 non-marine engines. The state noted that reductions in fuel efficiency will lead to greater fuel use and greater emissions from burning extra heating oil. The EPA agreed with the state that there are significant benefits from using marine engines, and finalized a revision allowing engines in remote Alaska to use marine-certified engines. However, as the state of Alaska noted, marine-certified engines, particularly those below 800 horsepower (HP), are not required to meet more stringent requirements for reduction of PM emissions, which is the most significant pollutant of concern in these areas. Therefore, the EPA required that owners and operators of 2014 model year and later engines in remote areas of Alaska must either be certified to Tier 4 standards (whether land-based nonroad or marine) or must install PM reduction technologies on their engines to achieve at least 85 percent reduction in PM.

The original request from the state of Alaska noted particular concern with NO_x standards that would likely entail the use of SCR in remote Alaska. NO_x reductions are particularly important in areas where ozone is a concern, because NO_x is a precursor to ozone. However, the state of Alaska, and remote Alaska in particular, does not have any significant ozone

problems. Moreover, the use of SCR entails the supply, storage, and use of a DEF that needs to be used properly in order to achieve the expected emissions reductions, and that may have additional operational problems in remote arctic climates. As noted above, these villages are scattered over long distances in remote areas and are not connected to population centers by road or power grid. The villages are located in the most severe arctic environments in the United States and they rely on stationary diesel engines and fuel for electricity and heating, and these engines need to be in working condition, particularly in the winter. The availability of DEF in remote villages may be an issue, which is notable given the importance of the stationary engines in these villages. Furthermore, the costs for the acquisition, storage, and handling of the DEF are greater than for engines located elsewhere in the United States due to the remote location and severe arctic climate of the villages. In order to maintain proper availability of the DEF during the harsh winter months, new heated storage vessels may be needed at each engine facility, further increasing the compliance costs for these remote villages. Given the issues that would need to be addressed if SCR were required, and the associated costs of this technology when analyzed under NSPS guidelines, the EPA agreed with the state of Alaska’s argument that it is inappropriate to require such standards for stationary engines

in remote Alaska[4] and amended the NSPS for stationary CI internal combustion engines to specify that owners and operators of new stationary engines in remote areas of Alaska do not have to meet the Tier 4 standards for NO_x. However, owners and operators of model year 2014 and later engines that do not meet the Tier 4 PM standards would be required to use PM aftertreatment that achieves PM reductions of at least 85 percent. The use of PM aftertreatment will also achieve reductions in CO and NMHC.

Finally, regarding allowing owners and operators to blend up to 1.75 percent used oil into the fuel system, the state noted that there are no permitted used oil disposal facilities in remote Alaskan communities. The state has developed a cost-effective and reliable used-oil blending system that is currently being used in many remote Alaskan communities, disposing of the oil in an environmentally beneficial manner and capturing the energy content of the used oil. The absence of allowable blending would necessitate the shipping out of the used oil and would risk improper disposal and storage, as well as spills. According to the state, blending waste oil at 1.75 percent or less will keep the fuel within American Society for Testing and Materials (ASTM) specifications if the sulfur

[4] Note that this action applies to stationary engines only; it is unlikely that such an approach would be appropriate for mobile engines, given that they are less permanent in a village and can move in and out of areas as work requires.

content of the waste oil is below 200 ppm. The state acknowledged the need for engines equipped with aftertreatment devices to use fuel meeting the sulfur requirements. The EPA agreed that the limited blending of used oil into the diesel fuel used by stationary engines in remote Alaska is an environmentally beneficial manner of disposing of such oil and is of little to no concern when kept within appropriate limits. Therefore, the EPA finalized amendments that permit the blending of fuel oil at such levels for engines in remote Alaska. The used oil must be "on-spec," i.e., it must meet the on-specification levels and properties in 40 CFR 279.11.

2. New Request from the State of Alaska

On November 28, 2014, the EPA received a new request from the state of Alaska, which can be found in the docket for this rulemaking. The request asked that the EPA revise the criteria for remote areas of Alaska, which were established in the 2011 amendments as areas that are not accessible by the FAHS, to also include areas that are accessible by the FAHS, but face similar challenges to areas that are not accessible. The letter recommended that the EPA adopt the same definition for remote areas of Alaska in the NSPS that was adopted in the 2013 amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE), which can be found at 40 CFR part 63, subpart

ZZZZ. The RICE NESHAP definition specifies that engines in areas that are accessible by the FAHS can be considered remote if each of the following conditions is met: (1) the only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI engine 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 engine on an annual basis is used for residential purposes; and (3) the generating capacity of the facility is less than 12 megawatts, or the engine is used exclusively for backup power for renewable energy.[5]

The state of Alaska provided information in a March 2, 2015, letter to the EPA to show that the communities in these additional FAHS-accessible areas face similar challenges to the communities in areas that are not accessible by the FAHS, and that the concerns that led to the 2011 amendments to the NSPS are also valid for the additional areas. As discussed previously, these challenges include inaccessibility, expense for DEF transport and storage, risk of engine shutdown, shortage of trained operators, and availability and cost of Tier 4 engines. The state noted that some of the communities are only accessible by road for a few months each year, or only by weekly

[5] See 40 CFR 63.6603(b).

ferry service; the alternative travel method is by floatplane. Thus, the delivery of DEF and the travel for engine service technicians to these areas would be much more costly than for areas that are not remote. The need to heat the DEF in the communities with a severe arctic climate would divert heat that is routinely used for space heating. Communities in these areas rely on diesel engines for electricity and heating, similar to the communities that are in areas that are not accessible by the FAHS, and failure of the engine to operate due to a shortage of DEF could present a risk to human life. The communities also have difficulty finding and retaining trained operators for the engines and aftertreatment devices, according to the state of Alaska.[6]

Based on the information provided by the state, the EPA agrees that the circumstances that warranted different emission standards for new stationary CI internal combustion engines in areas of Alaska that are not accessible by the FAHS are also present in the additional FAHS-accessible remote areas identified in the RICE NESHAP definition.

B. Proposed Amendments

The EPA is proposing an amendment to the NSPS for

[6] The state noted in its letter that nonroad engines are typically brought in temporarily by contractors and, therefore, the concerns raised for stationary engines are not necessarily applicable for nonroad engines.

stationary CI internal combustion engines that would align the definition of remote areas of Alaska with the definition currently used in the RICE NESHAP. The amendments specify that engines in areas that are accessible by the FAHS can be considered remote if each of the following conditions is met: (1) the only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI engine 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 engine on an annual basis is used for residential purposes; and (3) the generating capacity of the facility is less than 12 megawatts, or the engine is used exclusively for backup power for renewable energy. The Alaska Railbelt Grid is defined as 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.

The following provisions that are currently present in the NSPS for stationary CI internal combustion engines for engines that are located in areas of Alaska that are not accessible by the FAHS will be extended to stationary CI internal combustion

engines located in the areas identified above:

• Exemption for all pre-2014 model year engines from diesel fuel sulfur requirements;

• Allowance for owners and operators of stationary CI engines to use engines certified to marine engine standards, rather than land-based nonroad engine standards;

• No requirement to meet emission standards that would necessitate the use of aftertreatment devices for NO_x, in particular, SCR (emission standards that are not based on the use of aftertreatment devices for NO_x will apply);

• No requirement to meet emission standards that would necessitate the use of aftertreatment devices for PM until the 2014 model year; and

• Allowance for the blending of used lubricating oil, in volumes of up to 1.75 percent of the total fuel, if the sulfur content of the used lubricating oil is less than 200 ppm and the used lubricating oil is "on-spec," i.e., it meets the on-specification levels and properties of 40 CFR 279.11.

IV. Impacts of the Proposed Action

A. Economic Impacts

The EPA does not expect any significant economic impacts as a result of this proposed rule. A significant economic impact for the amendment allowing the temporary override of inducements in emergency situations is not anticipated because AECDs are

expected to be activated rarely (if ever), and, thus, the impacts to affected sources and consumers of affected output will be minimal.

The economic impact from the change to the criteria for remote areas of Alaska will be a cost savings for owners or operators of engines that are located in the additional areas that will now be considered remote. The precise savings depends on the number and size of engines that will be installed each year. Information provided by the Alaska Energy Authority indicated that one to two new engines are expected to be installed each year. Information provided by the state of Alaska indicated that the expected initial capital cost savings per engine ranges from $28,000 to $163,000, depending on the size of the engine. There will also be annual operating and maintenance cost savings due to avoidance of the need to obtain and store DEF.

B. Environmental Impacts

The EPA does not expect any significant environmental impacts as a result of the proposed amendment to allow a temporary override of inducements in emergency situations. The AECDs are expected to be activated rarely (if ever) and will only affect emissions for a very short period.

The EPA also does not expect significant environmental impacts as a result of the proposed amendments to the criteria

for remote areas of Alaska. As an example, allowing the use of a Tier 3 engine instead of a Tier 4 engine would result in less reductions for a 250 HP stationary CI engine of 5.4 tons per year (tpy) of NOx, 0.1 tpy of NMHC, 1.6 tpy of CO, and 0.3 tpy of PM, assuming the engine operates full time (8,760 hours per year).[7] As stated previously, the state of Alaska estimates that only one to two new engines will be installed each year in the additional remote areas.

V. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at http://www2.epa.gov/laws-regulations/laws-and-executive-orders.

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

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

[7] Estimates are based on Tier 3 and Tier 4 emission factors for a 175-300 HP engine provided in Table A4 of Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling - Compression-Ignition. NR-009d. Assessment and Standards Division, Office of Transportation and Air Quality. U.S. Environmental Protection Agency. EPA-420-R-10-018. July 2010. http://www.epa.gov/otaq/models/nonrdmdl/nonrdmdl2010/420r10018.pdf.

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2060-0590. The proposed regulatory relief for stationary CI engines would be voluntary and optional.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. As mentioned earlier in this preamble, the EPA is harmonizing the NSPS for stationary CI engines in this action with an existing rule issued by the EPA for nonroad CI engines. Thus, this action is reducing regulatory impacts to small entities as well as other affected entities. The EPA is also including additional remote areas of Alaska in the regulatory flexibility provisions already in the rule for remote areas of Alaska, which further reduces the burden of the existing rule on small entities and other affected entities. We have, therefore,

concluded that this action will relieve regulatory burden for all directly regulated small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector. This action does not contain a federal mandate that may result in expenditures of $100 million or more for the private sector in any one year. Engine manufacturers have the flexibility to choose whether or not to use optional AECDs.

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.

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

This action does not have tribal implications as specified in Executive Order 13175. 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. This proposed rule would impose compliance costs primarily on engine manufacturers, depending on the extent to which they take advantage of the flexibilities offered. The proposed amendments to expand the areas that are considered remote areas of Alaska would reduce the compliance costs for owners and operators of stationary engines in those areas. Thus, Executive Order 13175 does not apply to this action.

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

The EPA interprets Executive Order 13045 as applying to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

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

The EPA believes this action will **not** have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations. The provisions being proposed in this action are designed to eliminate risks to human life and are expected to be used rarely, if at all, and will only affect emissions for a very short period. Other changes the EPA is proposing to make have minimal effect on emissions.

List of Subjects in 40 CFR Part 60

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

Dated: October 30, 2015.

Gina McCarthy,
Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 60 of the Code of the Federal Regulations is proposed to be amended as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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

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

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

2. Amend §60.4201 by revising paragraph (f)(1) and adding paragraph (h) to read as follows:

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

* * * * *

(f) * * *

(1) Remote areas of Alaska; and

* * * * *

(h) Stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with auxiliary emission control devices (AECDs) as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. When the qualified emergency situation has

ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

3. Amend §60.4202 by revising paragraph (g)(1) to read as follows:

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

* * * * *

(g) * * *

(1) Remote areas of Alaska; and

* * * * *

4. Amend §60.4204 by adding paragraph (f) to read as follows:

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

* * * * *

(f) Owners and operators of stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with AECDs as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and

the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

5. Amend §60.4210 by adding paragraph (j) to read as follows:

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

* * * * *

(j) Stationary CI ICE manufacturers may equip their stationary CI internal combustion engines certified to the emission standards in 40 CFR part 1039 with AECDs for qualified emergency situations according to the requirements of 40 CFR 1039.665. Manufacturers of stationary CI ICE equipped with AECDs as allowed by 40 CFR 1039.665 must meet all of the requirements in 40 CFR 1039.665 that apply to manufacturers. Manufacturers must provide data demonstrating that the engine complies with the Tier 1 standard in 40 CFR 89.112 when the AECD is activated when applying for certification of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

6. Amend §60.4211 by adding paragraph (h) 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?

* * * * *

(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of

stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.

7. Amend §60.4214 by adding paragraph (e) to read as follows:

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

* * * * *

(e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).

8. Amend §60.4216 by revising paragraphs (b) through (d) and (f) as follows:

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

* * * * *

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in remote areas of Alaska may choose to meet the applicable emission standards for emergency engines in §§60.4202 and 60.4205, and not those for non-emergency engines in §§60.4201 and 60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §§60.4201 and 60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in remote areas of Alaska.

* * * * *

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

9. Amend §60.4219 by adding in alphabetical order the definitions for "*Alaska Railbelt Grid*" and "*Remote areas of Alaska*" to read as follows:

§60.4219 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.

* * * * *

Remote areas of Alaska means areas of Alaska that meet either paragraph (1) or (2) of this definition.

(1) Areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS).

(2) Areas of Alaska that meet all of the following criteria:

(i) The only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI ICE 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 CI ICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the source is less than 12 megawatts, or the stationary CI ICE is used exclusively for backup power for renewable energy.

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BILLING CODE 6560-50-P

[FR Doc. 2015-28342 Filed: 11/5/2015 8:45 am; Publication Date: 11/6/2015]