MEMORANDUM

SUBJECT: Potential Revisions to the Nonroad Engine Regulation Citations in the NSPS for Stationary Internal Combustion Engines

FROM: Melanie King, Office of Air Quality Planning and Standards

DATE: June 28, 2017

The New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) and Spark Ignition (SI) Internal Combustion Engines, which are codified in the Code of Federal Regulations (CFR) at 40 CFR part 60 subparts IIII and JJJJ, require certain stationary engines to meet emission standards and certification requirements that were originally established for nonroad engines. Subpart IIII references the emission standards and other requirements for nonroad CI engines in 40 CFR parts 89, 94, and 1039, as well as the general compliance provisions for nonroad engines in 40 CFR part 1068. Subpart JJJJ references the emission standards and other requirements for nonroad SI engines in 40 CFR parts 90 and 1054, and also the general provisions in part 1068.

The EPA intends to remove parts 89, 90, and 94 from the CFR because they identify emission standards and certification procedures that are no longer in use for nonroad engines. The removal of these "legacy" parts from the CFR will necessitate changes to 40 CFR part 60, subpart IIII and subpart JJJJ where there are references to the legacy parts. The following pages provide the draft amendments that the EPA plans to propose in a future rulemaking to update references in subparts IIII and JJJJ. These draft amendments are designed to apply current best practices for testing and certification procedures in subparts IIII and JJJJ, but to otherwise leave unchanged the emission standards and overall stringency of the NSPS for stationary engines. These best practices are already in use by engine manufacturers, even when certifying stationary engines to the emission standards in the legacy parts. The emission standards in parts 89, 90, and 94 that apply to older model stationary engines as well as new stationary emergency engines will be reproduced in appendices to subparts 1039, 1042, and 1054 and those appendices will then be cross-referenced in subpart IIII and JJJJ. The specific revisions to subparts IIII and JJJJ are as follows:

- Add appendix I to 40 CFR part 1039, which creates a record of the Tier 2 and Tier 3 emission standards currently stated in 40 CFR 89.112 and 89.113, and update subpart IIII to reference the new appendix in part 1039 to replace the references to §§ 89.112 and 89.113
- Update subpart IIII to reference the appendix in part 1042 to replace the references to standards in § 94.8
- Update subpart JJJJ to reference the appendix in part 1054 to replace the references to the Phase 1 and 2 standards in part 90
- Updating references in subparts IIII and JJJJ to point to the current compliance procedures in parts 1039, 1042, 1054, and 1068

The EPA is sharing the draft amendment to provide stakeholders with an opportunity to provide input in advance of a planned future rulemaking in which the EPA will formally propose and request public comment on amendments. Any questions regarding these draft amendments to subparts IIII and JJJJ should be directed to Melanie King of the EPA's Office of Air Quality Planning and Standards at (919) 541-2469 or king.melanie@epa.gov.

§60.4200 Am I subject to this subpart?

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

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

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in ~~40 CFR 89.112, 40 CFR 89.113,~~ 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115 and 40 CFR part 1039, Appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.

* * * * *

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the ~~certification~~ Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, Appendix I ~~in 40 CFR 94.8~~, as applicable, for all pollutants, for the same displacement and maximum engine power:

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(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to ~~the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable,~~ the Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, Appendix I, if the engines will be used solely in either or both of the following locations:

* * * * *

(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 part 1039, Appendix I ~~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.

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

(a) * * *

(1) * * *

(i) The ~~certification~~ Tier 2 emission standards for new nonroad CI engines ~~for the same model year and~~ for the appropriate maximum engine power as described in 40 CFR part 1039, Appendix I, ~~40 CFR 89.112 and 40 CFR 89.113~~ for all pollutants and the smoke standards as specified in 40 CFR 1039.105 ~~for model year 2007 engines~~, and

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(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the ~~certification~~ Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same ~~model year and~~ maximum engine power as described in 40 CFR part 1039, Appendix I~~in 40 CFR 89.112 and 40 CFR 89.113~~ for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007.

(b) * * *

(2) For 2011 model year and later, the ~~certification~~ Tier 2 emission standards ~~for new nonroad CI engines for engines of the same model year and maximum engine power~~ as described in 40 CFR part 1039, Appendix I ~~in 40 CFR 89.112 and 40 CFR 89.113~~ for all pollutants and the smoke standards as specified in 40 CFR 1039.105.

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(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the ~~certification~~ Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, Appendix I, ~~40 CFR 94.8,~~ as applicable, for all pollutants, for the same displacement and maximum engine power:

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(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) of this section may be certified to the Tier 2 or Tier 3 emission standards for new marine CI engines for the same displacement and maximum engine power as described in ~~provisions of 40 CFR part 94 or, if Table 2 to~~ 40 CFR 1042.101 and 40 CFR part 1042, Appendix I~~identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042~~, if the engines will be used solely in either or both of the following locations:

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

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the Tier 1 emission standards in 40 CFR part 1042, Appendix I~~40 CFR 94.8(a)(1)~~.

* * * * *

(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 part 1039, Appendix I ~~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.

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

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with

the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the Tier 1 emission standards in 40 CFR part 1042, Appendix I~~40 CFR 94.8(a)(1)~~.

* * * * *

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

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

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in ~~40 CFR part 94, subpart C, or~~ 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part ~~94 or~~ 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of ~~40 CFR part 89, 40 CFR part 94 or~~ 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

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

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR part~~s 89, 94,~~ 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR part~~s 89, 94,~~ 1039 or 1042,

as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.
(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.
(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part~~s 89, 94,~~ 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.
* * * * *
(i) The replacement engine provisions of ~~40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and~~ 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.
(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 document that the engine complies with the Tier 1 standard in 40 CFR part 1039, Appendix I,~~40 CFR 89.112~~ when the AECD is activated. Manufacturers must provide any relevant testing, engineering analysis, or other information in sufficient detail to support such statement when applying for certification (including amending an existing certificate) of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
(a) * * *
(3) Meet the requirements of 40 CFR part~~s 89, 94 and/or~~ 1068, as they apply to you.
(b) * * *
(1) Purchasing an engine certified to emission standards ~~according to 40 CFR part 89 or 40 CFR part 94, as applicable,~~ for the same model year and maximum engine power as described in 40 CFR part 1039 and part 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.
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§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?
(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in 40

CFR part 1039, Appendix I, or with Tier 2 emission standards as described in 40 CFR part 1042, Appendix I, may follow the testing procedures specified in §60.4213, as appropriate.

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(c) Exhaust emissions from stationary CI ICE subject to Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, Appendix I, or Tier 2 emission standards as described in 40 CFR part 1042, Appendix I, ~~that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable,~~ must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard ~~in 40 CFR 89.112 or 40 CFR 94.8, as applicable~~, determined from the following equation:

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

Where:

STD = The standard specified for that pollutant in 40 CFR part 1039 or part 1042~~40 CFR 89.112 or 40 CFR 94.8~~, as applicable.

~~Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.~~

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

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(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 Tier 2 or Tier 3 emission standards described in ~~requirements of~~ 40 CFR part~~s 94 or~~ 1042 for the same model year, displacement, and maximum engine power, as appropriate, rather than the otherwise applicable requirements of 40 CFR part~~s 89 and~~ 1039, as indicated in §§60.4201(f) and 60.4202(g).

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§60.4219 What definitions apply to this subpart?

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Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 1042.101(e)~~94.9(a)~~.

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

§60.4230 Am I subject to this subpart?

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(e) Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts ~~90 and~~ 1048 and 1054, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

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

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part ~~90 or~~ 1054, as follows:

If engine displacement is * * *	**and manufacturing dates are * * ***	**the engine must meet the following nonhandheld emission standards identified in 40 CFR part 1054:~~and related requirements for nonhandheld engines under * * *~~**
(1) below 225 cc	July 1, 2008 to December 31, 2011	Phase 2~~40 CFR part 90~~.
(2) below 225 cc	January 1, 2012 or later	Phase 3~~40 CFR part 1054~~.
(3) at or above 225 cc	July 1, 2008 to December 31, 2010	Phase 2~~40 CFR part 90~~.
(4) at or above 225 cc	January 1, 2011 or later	Phase 3~~40 CFR part 1054~~.

(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 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)(4) to the Phase 1 emission standards in 40 CFR part 1054, Appendix I~~40 CFR 90.103~~, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 1054~~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 as appropriate for new nonroad SI engines in 40 CFR part ~~90 or~~ 1054~~, as appropriate~~.

(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 part 1054, Appendix I~~40 CFR 90.103~~, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 1054~~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 as appropriate for new nonroad SI engines in 40 CFR part ~~90 or~~ 1054~~, as appropriate~~.

(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 part 1054, Appendix I~~40 CFR 90.103~~, applicable to class II engines, for new nonroad SI engines in 40 CFR part 1054~~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 and other requirements as appropriate for new nonroad SI engines in 40 CFR part ~~90 or~~ 1054~~, as appropriate~~. 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.

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

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification and testing procedures required in ~~40 CFR part 90, subpart B, or~~ 40 CFR part 1054, subparts C and F~~, as applicable, and must test their engines as specified in those parts~~. Manufacturers of equipment

containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

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

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in ~~40 CFR part 90 or~~ 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR part 1054, Appendix I~~40 CFR 90.103~~, applicable to class II engines, must certify their stationary SI ICE using the certification and testing procedures required in ~~40 CFR part 90, subpart B, or~~ 40 CFR part 1054, subparts C and F~~, as applicable, and must test their engines as specified in those parts~~. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

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

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in ~~40 CFR part 90 or~~ 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR part 1054, Appendix I~~40 CFR 90.103~~, applicable to class II engines, must certify their stationary SI ICE using the certification and testing procedures required in ~~40 CFR part 90, subpart B, or~~ 40 CFR part 1054, subparts C and F~~, as applicable, and must test their engines as specified in those parts~~. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

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

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247. Manufacturers of stationary SI internal combustion engines who choose not to certify their engines under this section must notify the ultimate purchaser that testing requirements apply as described in §60.4243(b)(2); manufacturers must keep a copy of this notification for five years after shipping each engine and make those documents available to EPA upon request.

(b) Manufacturers of engines other than those certified to standards in ~~40 CFR part 90 or~~ 40 CFR part 1054 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D-1 cycle of International Organization of Standardization 8178-4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 3 to 40 CFR 1048.505, except that Table 3 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in ~~40 CFR part 90 or~~ 40 CFR part 1054, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR part 1054, Appendix I~~40 CFR 90.103~~, applicable to class II engines, must certify their stationary SI ICE using the certification and testing procedures required in ~~40 CFR part 90, subpart B, or~~ 40 CFR part 1054, subparts C and F~~, as applicable, and must test their engines as specified in those parts~~. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

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

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of ~~40 CFR part 90,~~ 40 CFR parts 1048, ~~or 40 CFR part~~ 1054, and 1068, as applicable~~, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048 or 1054~~, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, as applicable. Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards identified in ~~applicable under 40 CFR part 90,~~ 40 CFR part 1048~~,~~ or ~~40 CFR part~~ 1054 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts. This provision also applies to equipment or component manufacturers certifying to standards under 40 CFR part 1060.
(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words "and stationary" after the word "nonroad" to the label.
(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).
(e) All stationary SI engines subject to mandatory certification that do not meet the requirements of this subpart must be labeled and exported according to 40 CFR 1068.230~~ and must be exported under the provisions of 40 CFR 1068.230~~. ~~Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909.~~ Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.
(f) For manufacturers of gaseous-fueled stationary engines required to meet the warranty provisions in ~~40 CFR 90.1103 or~~ 1054.120, we may establish an hour-based warranty period equal to at least the certified emissions life of the engines (in engine operating hours) if we determine that these engines are likely to operate for a number of hours greater than the applicable useful life within 24 months. We will not approve an alternate warranty under this paragraph (f) for nonroad engines. An alternate warranty period approved under this paragraph (f) will be the specified number of engine operating hours or two years, whichever comes first. The engine manufacturer shall request this alternate warranty period in its application for certification or in an earlier submission. We may approve an alternate warranty period for an engine family subject to the following conditions:
(1) The engines must be equipped with non-resettable hour meters.
(2) The engines must be designed to operate for a number of hours substantially greater than the applicable certified emissions life.
(3) The emission-related warranty for the engines may not be shorter than any published warranty offered by the manufacturer without charge for the engines. Similarly, the emission-related warranty for any component shall not be shorter than any published warranty offered by the manufacturer without charge for that component.

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

* * * * *

(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 1068.120(b)~~94.11(a)~~.

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

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

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

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

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts ~~90,~~ 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

* * * * *

§60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) ~~Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90.~~ Manufacturers certifying to emission standards in 40 CFR part 1054 must meet the provisions of 40 CFR part 1054. Note that 40 CFR part 1054, Appendix I, describes various provisions that do not apply for engines meeting Phase 1 standards. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060 to the extent they apply to equipment manufacturers.

* * * * *

§60.4248 What definitions apply to this subpart?

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

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in ~~40 CFR 90.105,~~ 40 CFR 1054.107~~,~~ and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first. You may request in your application for certification that we approve a shorter certified emissions life for an engine family. We may approve a shorter certified emissions life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter certified emissions life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The certified emissions life value may not be shorter than any of the following:

(i) 1,000 hours of operation.

(ii) Your recommended overhaul interval.

(iii) Your mechanical warranty for the engine.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of ~~40 CFR part 90,~~ 40 CFR part 1048~~,~~ or 40 CFR part 1054, as appropriate.

* * * * *

Appendix I to Part 1039— Summary of Previous Emission Standards

The following standards apply to nonroad compression-ignition engines produced before the model years specified in §1039.1:

(a) Tier 1 standards apply as summarized in the following table:

Table 1 to Appendix I—Tier 1 Emission Standards (g/kW-hr)

Rated Power (kW)	Starting Model Year	NOx	HC	NOx+NMHC	CO	PM
kW< 8	2000	—	—	10.5	8.0	1.0
8 < kW < 19	2000	—	—	9.5	6.6	0.80
19 < kW < 37	1999	—	—	9.5	5.5	0.80
37 < kW < 75	1998	9.2	—	—	—	—
75 < kW < 130	1997					
130 < kW < 560	1996	9.2	1.3	—	11.4	0.54
kW > 560	2000					

(b) Tier 2 standards apply as summarized in the following table:

Table 2 to Appendix I—Tier 2 Emission Standards (g/kW-hr)

Rated Power (kW)	Starting Model Year	NOx+NMHC	CO	PM
kW< 8	2005	7.5	8.0	0.80
8 < kW < 19	2005	7.5	6.6	0.80
19 < kW < 37	2004	7.5	5.5	0.60
37 < kW < 75	2004	7.5	5.0	0.40
75 < kW < 130	2003	6.6	5.0	0.30
130 < kW < 225	2003	6.6	3.5	0.20
225 < kW < 450	2001	6.4	3.5	0.20
450 < kW < 560	2002			
kW > 560	2006			

(c) Tier 3 standards apply as summarized in the following table:

Table 3 to Appendix I—Tier 3 Emission Standards (g/kW-hr)

Rated Power (kW)	Starting Model Year	NOx+NMHC	CO	PM
37 < kW < 75	2008	4.7	5.0	0.40
75 < kW < 130	2007	4.0	5.0	0.30
130 < kW < 560	2006	4.0	3.5	0.20

Appendix I to Part 1042— Summary of Previous Emission Standards

The following standards apply to compression-ignition marine engines produced before the model years specified in §1042.1:

(a) *Engines below 37 kW.* Tier 1 and Tier 2 standards for engines below 37 kW apply as ~~specified in 40 CFR part 89 and~~ summarized in the following table:

Table 1 to Appendix I—Emission Standards for Engines Below 37 kW (g/kW-hr)

Rated power (kW)	Tier	Model year	NMHC + NOx	CO	PM
kW<8	Tier 1	2000	10.5	8.0	1.0
	Tier 2	2005	7.5	8.0	0.80
8≤kW<19	Tier 1	2000	9.5	6.6	0.80
	Tier 2	2005	7.5	6.6	0.80
19≤kW<37	Tier 1	1999	9.5	5.5	0.8
	Tier 2	2004	7.5	5.5	0.6

(b) *Engines at or above 37 kW.* Tier 1 and Tier 2 standards for engines at or above 37 kW apply as ~~specified in 40 CFR part 94 and~~ summarized in the following table~~as follows~~:

(1) Tier 1 standards. NOx emissions from model year 2004 and later engines with displacement of 2.5 or more liters per cylinder may not exceed the following values:

(i) 17.0 g/kW-hr when maximum test speed is less than 130 rpm.

(ii) $45.0 \times N^{-0.20}$ when maximum test speed is at or above 130 but below 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute. Round the calculated standard to the nearest 0.1 g/kW-hr.

(ii) 9.8 g/kW-hr when maximum test speed is 2000 rpm or more.

(2) Tier 2 primary standards. Exhaust emissions from Category 1 engines at or above 37 kW and all Category 2 engines may not exceed the values shown in the following table:

Table 2 to Appendix I Primary Tier 2 Emission Standards for Commercial and Recreational Marine Engines at or Above 37 kW (g/kW-hr)

Engine size liters/cylinder	Maximum engine power	Category	Model year	NOx+THC g/kW-hr	CO g/kW-hr	PM g/kW-hr
disp. < 0.9	power ∃ 37 kW	Category 1 Commercial	2005	7.5	5.0	0.40
		Category 1 Recreational	2007	7.5	5.0	0.40
0.9 ≤ disp. < 1.2	All	Category 1 Commercial	2004	7.2	5.0	0.30
		Category 1 Recreational	2006	7.2	5.0	0.30
1.2 ≤ disp. < 2.5	All	Category 1 Commercial	2004	7.2	5.0	0.20
		Category 1 Recreational	2006	7.2	5.0	0.20
2.5 ≤ disp. < 5.0	All	Category 1 Commercial	2007	7.2	5.0	0.20
		Category 1 Recreational	2009	7.2	5.0	0.20
5.0 ≤ disp. < 15.0	All	Category 2	2007	7.8	5.0	0.27
15.0 ≤ disp. < 20.0	power < 3300 kW	Category 2	2007	8.7	5.0	0.50
	power ≥ 3300 kW	Category 2	2007	9.8	5.0	0.50
20.0 ≤ disp. < 25.0	All	Category 2	2007	9.8	5.0	0.50
25.0 ≤ disp. < 30.0	All	Category 2	2007	11	5.0	0.5

(3) *Tier 2 supplemental standards.* The not-to-exceed emission standards specified in 40 CFR 94.8(e) apply for all engines subject to the Tier 2 standards described in paragraph (b)(2) of this appendix.

Appendix I to Part 1054—Summary of Previous Emission Standards

The following standards apply to nonroad spark-ignition engines produced before the model years specified in §1054.1:

(a) *Handheld engines.* (1) Phase 1 ~~and Phase 2~~ standards apply for handheld engines as ~~specified in 40 CFR 90.103 and~~ summarized in the following table~~s~~ starting with model year 1997:

Table 1 to Appendix I—Phase 1 Emission Standards for Handheld Engines (g/kW-hr)[a]

Engine displacement class	HC	NO_X	CO
Class III	295	5.36	805
Class IV	241	5.36	805
Class V	161	5.36	603

[a] Phase 1 standards are based on testing with new engines only.

(2) Phase 2 standards apply for handheld engines as summarized in the following table starting with model year 2002 for Class III and Class IV, and starting in model year 2004 for Class V:

Table 2 to Appendix I—Phase 2 Emission Standards for Handheld Engines (g/kW-hr)[a]

Engine displacement class	HC + NO_X	CO
Class III	50[a]	805
Class IV	50[b]	805
Class V	72[c]	603

~~[a] The standards shown are the fully phased-in standards. See 40 CFR 90.103 for standards that applied during the phase-in period.~~

[a] Class III engines had alternate HC+NOx standards of 238, 175, and 113 for model years 2002 through 2004, respectively.

[b] Class IV engines had alternate HC+NOx standards of 196, 148, and 99 for model years 2002 through 2004, respectively.

[c] Class V engines had alternate HC+NOx standards of 143, 119, and 96 for model years 2004 through 2006, respectively.

(b) *Nonhandheld engines.* (1) Phase 1 ~~and Phase 2~~ standards apply for nonhandheld engines as ~~specified in 40 CFR 90.103 and~~ summarized in the following table~~s~~ starting with model year 1997:

Table 3 to Appendix I—Phase 1 Emission Standards for Nonhandheld Engines (g/kW-hr)[a]

Engine displacement class	HC + NO_X	CO
Class I	16.1	519
Class II	13.4	519

[a] Phase 1 standards are based on testing with new engines only.

(2) Phase 2 standards apply for nonhandheld engines as summarized in the following table starting with model year 2001 (except as noted for Class I engines):

Table 4 to Appendix I—Phase 2 Emission Standards for Nonhandheld Engines (g/kW-hr)

Engine displacement class	HC + NO_X	NMHC + NO_X	CO
Class I-A	50	—	610

Class I-B	40	37	610
Class I[a]	16.1	14.8	610
Class II[ab]	12.1	11.3	610

~~[a]The Class II standards shown are the fully phased-in standards. See 40 CFR 90.103 for standards that applied during the phase-in period.~~

[a] The Phase 2 standards for Class I engines apply for new engines produced starting August 1, 2007, and for any engines belonging to an engine model whose original production date was on or after August 1, 2003.

[b] Class II engines had alternate HC+NOx standards of 18.0, 16.6, 15.0, 13.6 and alternate NMHC+NOx standards of 16.7, 15.3, 14.0, 12.7 for model years 2001 through 2004, respectively.

(3) Note that engines subject to Phase 1 and Phase 2 standards were not subject to the following provisions:

(i) Useful life provisions as specified in §1054.107.

(ii) Evaporative emission standards as specified in §§1054.110 and 1054.112.

(iii) Altitude adjustments as specified in §1054.115(c).

(iv) Warranty provisions as specified in §1054.120(f).

(v) Emission-related installation instructions as specified in §1054.130.

(vi) Bonding requirements as specified in §1054.690.