



Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE) – 40 CFR Part 60, Subpart IIII

Owners/operators of emergency engines Engines constructed, modified or reconstructed after July 11, 2005 and manufactured after April 1, 2006 are subject to this subpart. Installation deadlines apply. ¹ Engines constructed (ordered), modified, or reconstructed on or before July 11, 2005 are not subject to this subpart ⁴							
Engine type:	Pre-2007 with displacement < 10 L/cylinder (not fire pump engine)	Pre-2007 with displacement ≥ 10 and < 30 L/cylinder (not fire pump engine)	≥ 2007 model year with displacement < 30 L/cylinder (not fire pump engine)	Certified NFPA Fire pump engines displacement < 30 L/cylinder Manufactured after July 1, 2006	Displacement ≥ 30 L/cylinder	Modified or reconstructed with displacement < 30 L/cylinder	Modified or reconstructed with displacement ≥ 30 L/cylinder
<u>§60.4211(f) There is no time limit on use of engine in emergency situations.</u>							
Compliance requirements²	<p>§60.4206 Operate and maintain engine that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.</p> <p>§60.4211(a)(1-3) Operate and maintain the engine and control device according to the manufacturer's emission instructions; change only emission settings permitted by the manufacturer; and meet applicable requirements of 40 CFR parts 89, 94 and/or 1068.</p> <p>§60.4211(b) - Purchase certified engine; or keep records of performance test results for a similar engine, or engine manufacturer data, or control device vendor data; or conduct initial performance test.</p> <p>§60.4211(f)(1-3)⁵ - Non-emergency situations limited to 50 hours per year (counts toward 100 hours). Maintenance, testing and NERC emergency demand response limited to 100 hours per calendar year</p> <p>§60.4211(g)(1-3)⁶ If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission instructions, or you change emission settings in a way that is not permitted by the manufacturer.</p>		<p>§60.4206 §60.4211(a)(1-3) §60.4211(c) – Purchase engine certified to emission standards. §60.4211(f)(1-3) §60.4211(g)(1-3)</p>	<p>Fire Pumps < 30 L/cyl Manufactured Prior to model years in Table 3: §60.4206 §60.4211(a)(1-3) §60.4211(b) §60.4211(f)(1-3) §60.4211(g)(1-3)</p> <p>Fire Pumps < 30L/cyl Manufactured During or After model year and HP listed in Table 3 - §60.4206 §60.4211(a)(1-3) §60.4211(c) §60.4211(f)(1-3) §60.4211(g)(1-3)</p> <p>Table 3: Model Year Engines 2011 - <100 HP 2010 - 100≤HP<175 2009 - 175≤ HP< 750 2008 - >750 HP</p>	<p>§60.4206 §60.4211(a)(1-3) §60.4211(d) – - Conduct initial performance test and establish continuously monitored operating parameters. §60.4211(f)(1-3) §60.4211(g)(1-3)</p>	<p>§60.4206 §60.4211(a)(1-3) §60.4211(c) §60.4211(f)(1-3) §60.4211(g)(1-3)</p>	<p>§60.4206 §60.4211(a)(1-3) §60.4211(d)(1-3) - Emission standards specified in §60.4204(c) or §60.4205(d); conduct initial performance test, establish continuously monitored operating parameters, and conduct annual performance tests. §60.4211(f)(1-3) §60.4211(g)(1-3)</p>



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Engine type:	Pre-2007 with displacement < 10 L/cylinder (not fire pump engine)	Pre-2007 with displacement ≥ 10 and < 30 L/cylinder (not fire pump engine)	≥ 2007 model year with displacement < 30 L/cylinder (not fire pump engine)	Certified NFPA Fire pump engines displacement < 30 L/cylinder Manufactured after July 1, 2006	Displacement ≥ 30 L/cylinder	Modified or reconstructed with displacement < 30 L/cylinder	Modified or reconstructed with displacement ≥ 30 L/cylinder
Fuel requirements ⁶	§60.4207(a),(b),(e)				§60.4207(d),(e)		§60.4207(a),(b),(e)
Monitoring	<p>§60.4209 - Must install non-resettable hour meter prior to startup of engine if it does not meet standards applicable to non-emergency engines. If equipped with diesel particulate filter used to comply with emission standards in §60.4204, install backpressure monitor that notifies when high back pressure limit of the engine is approached. You must also meet monitoring requirements in the “Compliance” section (§60.4211).</p>						
Emission standards ³	§60.4205(a) - Table 1 of this subpart	§60.4205(a) - 40 CFR 94.8(a)(1)	§60.4205(b) - §60.4202;	§60.4205(c) - Table 4 of this subpart	§60.4205(d)(1-2)	Pre-2007 model year- 60.4205(a) 2007 model year or later - 60.4205(b)	§60.4204(c)(1-4)
Testing requirements	§60.4212				§60.4213	§60.4204(c) and §60.4212	§60.4213
Notification, reports, and records	<p>§60.4214(b) and (c) and (d) - Not required to submit initial notification. Starting with model year 2011 (HP≥175 (kW≥130)), 2012 (75≤HP<175 (56≤kW<130)), and 2013 (25≤HP<75 (19≤kW<56)), if engine doesn't meet standards applicable to non-emergency engines in applicable model year, keep records of operation of engine in emergency and non-emergency service that are recorded through the non-resettable hour meter (time and reason of operation).</p> <p>If equipped with a diesel particulate filter, keep records of corrective actions taken after backpressure monitor has indicated the high backpressure limit of engine was approached.</p> <p>If maximum engine power is >100 HP and operates or is contractually obligated to be available for >15 hours per calendar year for emergency demand response, or voltage or frequency deviation, or up to 50 hours as part of financial arrangement with another entity, submit annual report (electronically at www.epa.gov/cdx by March 31 for previous calendar year, beginning with 2015 records due on March 31, 2016).</p>						



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Owners/operators of emergency CI ICE Installation deadlines and footnotes

¹Installation deadlines (§60.4208) Does not apply to CI ICEs that have been modified/reconstructed or that are removed from one location and reinstalled at a new location.	Date to stop installing/importing
Any size CI ICE that does not meet 2007 model year engine requirements (excludes fire pump engines)	Dec. 31, 2008
Stationary CI ICE <25 HP (<19 kW) that does not meet 2008 model year requirements (excludes fire pump engines)	Dec. 31, 2009
Non-emergency stationary CI ICE ≥25 HP (≥19 kW) and <75 HP (<56 kW) that does not meet 2013 model year requirements for non-emergency engines	Dec. 31, 2014
Non-emergency stationary CI ICE ≥75 HP (≥56 kW) and <175 HP (<130 kW) that does not meet 2012 model year requirements for non-emergency engines	Dec. 31, 2013
Non-emergency stationary CI ICE that is ≥175 HP (≥130 kW), including those >750 HP (560 kW), that does not meet 2011 model year requirements for non-emergency engines	Dec. 31, 2012
Non-emergency stationary CI ICE ≥750 HP (≥560 kW) that does not meet 2015 model year requirements for non-emergency engines	Dec. 31, 2016
Non-emergency stationary CI ICE ≥804 HP (≥600 kW) and <2,680 HP (<2,000 kW) with displacement ≥ 10 < 30 liters per cylinder that does not meet 2017 model year requirements for non-emergency engines	Dec. 31, 2018
Any stationary CI ICE with a displacement < 30 liters per cylinder that does not meet the applicable requirements specified §60.4208(a)-(g). [§60.4208(h)]	After dates specified in §60.4208(a)-(g)

Fuel Requirements - §60.4207⁶

Beginning Oct. 1, 2007 [§60.4207a]	Sulfur content. 500 parts per million (ppm) maximum, cetane index of 40; or maximum aromatic content of 35 volume percent.
Beginning Oct. 1, 2010 –CE-ICE < 30L/cyl [§60.4207(b)]	15 ppm maximum for nonroad, cetane index of 40; or maximum aromatic content of 35 volume percent.
Beginning Oct. 1, 2012 - CE-ICE < 30L/cyl [§60.4207(d)]	per-gallon sulfur content of 1,000 ppm

§60.4211(a) — In addition to requirements above, if subject to emission standards in this subpart, operate/maintain engine and control device according to manufacturer’s instructions, change only emission-related settings permitted by manufacturer, and meet requirements of 40 CFR parts 89, 94, and/or 1068.

³Emission standards must be achieved over entire life of engine (§60.4203). §60.4204(d) and §60.4205(e) — For engines <30 L/cylinder, if conducting performance tests in-use, meet the not-to-exceed (NTE) standards in §60.4212. §60.4204(e) and §60.4205(f) — Modified or reconstructed engines must meet applicable emission standards (demonstrated by using certified engine or conducting performance test within 60 days after operation).

⁴§60.4200(e) — Additionally, engines acting as temporary replacement units and located at a stationary source for less than 1 year and properly certified as meeting the standards applicable to such engine under appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

⁵§60.4211(f)(2) — On May 1, 2015, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision vacating paragraphs 40 CFR 60.4211(f)(2)(ii)-(iii).

⁶§60.4211(g)(1)-(3) —
Engines all HP - keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions
Engine <100 HP – conduct an initial performance test within 1 year of the change in operations.
Engine ≥ 100 ≤ 500 HP - conduct an initial performance test within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, or maintained or within 1 year after in change in operations.
Engine > 500 HP - initial performance test within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer’s emission instructions, or within 1 year after you change emission settings in a way