



Connecticut Department of Energy and Environmental Protection



National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE Rule)



**40 CFR 63 Subpart ZZZZ
Area Source New Spark Ignition 2-Stroke Lean Burn Engine
>500 Horsepower**



Connecticut Department of Energy and Environmental Protection

Compliance Requirements

You must comply with the Spark Ignition (SI) New Source Performance Standards (NSPS), as applicable, upon startup.



Photo credit: EPA



Connecticut Department of Energy and Environmental Protection

Spark Ignition New Source Performance Standards (SI NSPS)

You are subject to the SI NSPS (40 CFR 60 subpart JJJJ) if your engine was:

–Constructed (**ordered***) after June 12, 2006 **AND** manufactured on/after: January 1, 2008 (if HP<1,350) or July 1, 2007 (if HP>1,350)

OR

–Modified/reconstructed after June 12, 2006

*NOTE: For the purposes of this rule, the date that construction commences is the date the engine is ordered by the owner or operator.



Connecticut Department of Energy and Environmental Protection

Spark Ignition New Source Performance Standards (SI NSPS)

If you are subject to the SI NSPS, you must meet these requirements:

•Emission and Operating Limits, Testing Requirements, Monitoring Requirements:

- See Table
- Must meet these standards for the life of the engine

•Fuel Requirements:

- Gasoline engines must use fuel that meets the sulfur limit: cap of 80 ppm/gal



Photo credit: EPA



Connecticut Department of Energy and Environmental Protection

Spark Ignition New Source Performance Standards (SI NSPS)

If you are subject to the SI NSPS, you must meet these requirements:

•Compliance Requirements:

•If you have a *certified* engine:

- Install, operate, and maintain engine according to manufacturer's instructions

•If you do not operate/maintain according to manufacturer's instructions:

- Keep maintenance plan and maintenance records, operate consistent with good air pollution control practices
- Initial performance test and subsequent testing every 8,760 hours or 3 years, whichever is first

•If you have a *non-certified* engine:

- Maintenance plan

- Initial test and subsequent testing every 8,760 hours or 3 years, whichever is first

- If engine was manufactured after July 1, 2007 and before July 1, 2008 you may do one of the following in lieu of testing:

- Keep records of performance test results for each pollutant for a test conducted on a similar engine.
- Keep records of engine manufacturer data indicating compliance with standards.
- Keep records of control device vendor data indicating compliance with standards.

•Recordkeeping/Reporting:

- Documentation of certification (EPA Certificate of Conformity)
- Records of engine maintenance
- Initial notification for non-certified engines
- Notification of Intent to Conduct Performance Testing 30 days prior to test
- Results of performance testing within 60 days of test



Certified Engine

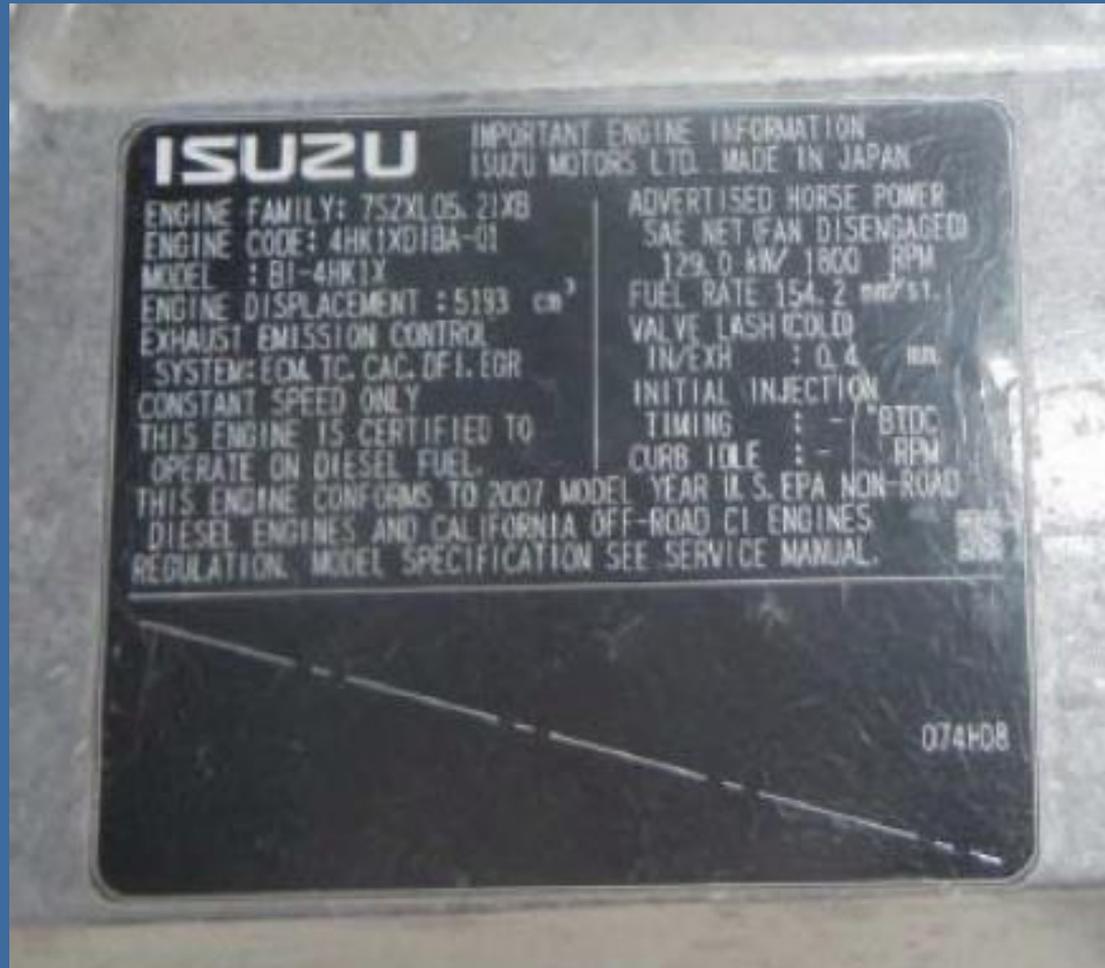


Photo credit: EPA



Connecticut Department of Energy and Environmental Protection

Engine Category	Date Constructed/Reconstructed/Manufactured	Size/Engine Type/Fuel	Emission Standards	Importing/Installing Requirements ⁴	Compliance Requirements				Notification, Reports, and Records Requirements	General Provisions (40 CFR part 60)
					Engines being operated and maintained in a certified manner ¹		Engines being operated and maintained in a <u>non-certified</u> manner ²			
					General Compliance	Performance Testing	General Compliance	Performance Testing		
Lean burn HP<1,350	Commenced construction after 6/12/2006 and manufactured on or after 1/1/2008	HP<1,350	60.4233(e)	60.4236(b)	60.4243(a)(1) If using AFRC: 60.4243(g) 40 CFR part 1068, subparts A-D.		60.4243(a)(2)(iii) If using AFRC: 60.4243(g)	60.4243(a)(2)(iii) ³ 60.4244		
≥500 HP (except lean burn HP<1,350)	Commenced construction after 6/12/2006 and manufactured on or after 7/1/2007	≥500 HP Gasoline	60.4231(b) 60.4233(b)	60.4236(b),(d)	If using AFRC: 60.4243(g) Manufactured before 7/1/2008: 60.4243(h) Manufactured after 7/1/2008: 60.4243(a)(1) 40 CFR part 1068, subparts A-D.	None	If using AFRC: 60.4243(g) Manufactured before 7/1/2008: 60.4243(h) Manufactured after 7/1/2008: 60.4243(a)(2)(iii) ³	Manufactured before 7/1/2008: None required Manufactured after 7/1/2008: 60.4243(a)(2)(iii) ³ 60.4244	All Engines: 60.4245(a),(d) Non-certified: 60.4245(c)	60.4246 Table 3
		≥500 HP (except gasoline and rich burn LPG)	60.4233(e)	60.4236(b)	If using AFRC: 60.4243(g) Certified: 60.4243(b)(1) 60.4243(a)(1) Non-certified: 60.4243(b)(2)	Non-Certified: 60.4243(b)(2)(ii), 60.4244 Certified: None	60.4243(a)(2)(iii) If using AFRC: 60.4243(g)	60.4243(a)(2)(iii) 60.4244		
Modified/Reconstructed	Modified or reconstructed after 6/12/2006	Gasoline Natural gas and lean burn LPG	60.4233(f)(2) 60.4233(f)(4)	None			If using AFRC: 60.4243(g) 60.4243(i)		60.4245(a),(d)	

¹If you operate and maintain the certified engine and control device according to the manufacturer's emission-related instructions, you are operating in a certified manner.

²If you do not operate and maintain the certified engine and control device according to manufacturer's emission-related instructions, your engine will be considered a non-certified engine.

³If you own/operate an engine ≤500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the manufacturer's 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 engine is rebuilt or undergoes major repair or maintenance. A rebuilt ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

⁴The requirements of this section do not apply to ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.



Where do I send notifications and reports?



EPA REGION 1:

US Environmental Protection Agency

5 Post Office Square, Suite 100, Mail code: OES04-2

Boston, MA 02109-3912

Attention: Air Clerk

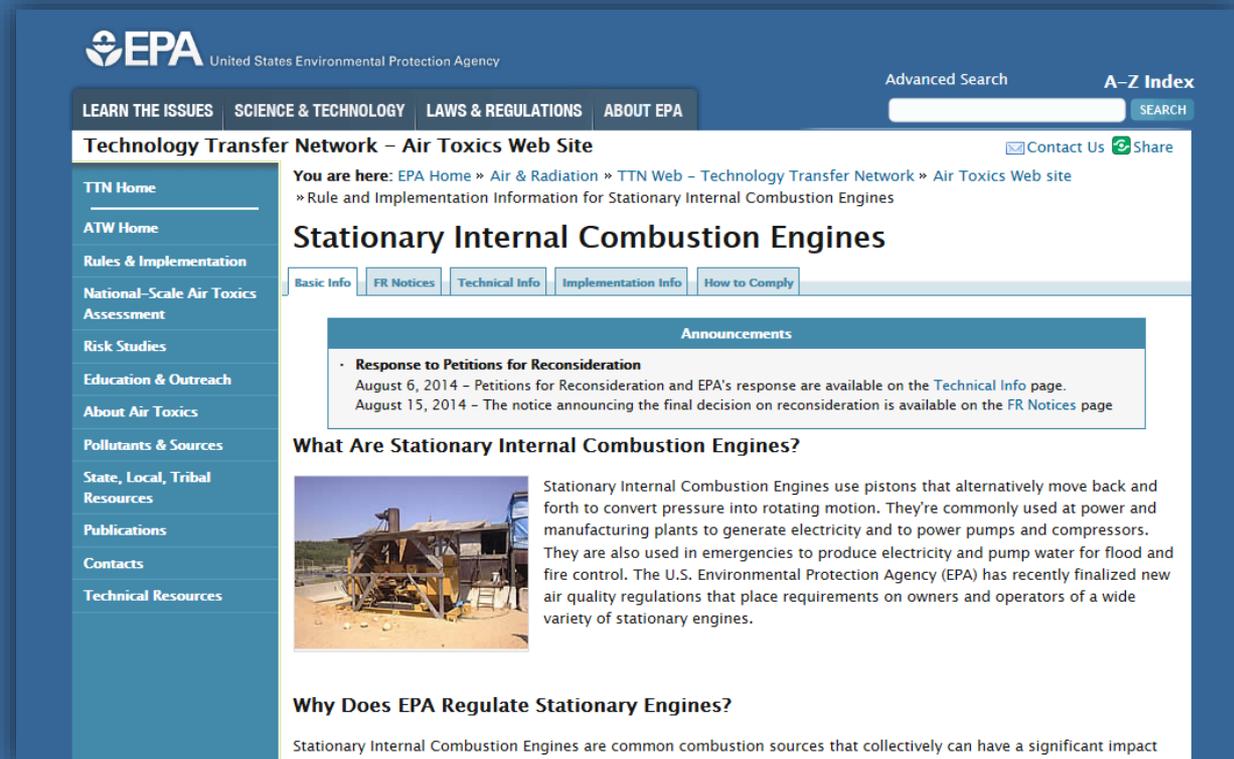


Connecticut Department of Energy and Environmental Protection

Visit the EPA RICE Compliance Page

www.epa.gov/ttn/atw/icengines

- ▶ Fact sheets
- ▶ Regulations
- ▶ Example notifications
- ▶ Announcements
- ▶ Q & A documents
- ▶ Testing advice
- ▶ Recorded webinars
- ▶ ...and more!



The screenshot shows the EPA website's Technology Transfer Network (TTN) page for Air Toxics Web Site. The page is titled "Stationary Internal Combustion Engines" and includes a navigation menu with options like "Basic Info", "FR Notices", "Technical Info", "Implementation Info", and "How to Comply". A section titled "Announcements" features a "Response to Petitions for Reconsideration" dated August 6, 2014, and August 15, 2014. Below this, there is a section titled "What Are Stationary Internal Combustion Engines?" with a photograph of a large industrial engine and a brief description. The text explains that these engines use pistons to convert pressure into rotating motion and are commonly used in power and manufacturing plants. It also mentions that the EPA has recently finalized new air quality regulations for these engines. A final section titled "Why Does EPA Regulate Stationary Engines?" states that these engines are common combustion sources that can have a significant impact.



Connecticut Department of Energy and Environmental Protection

Take Aways

Engine Type:

- A new or reconstructed non-emergency spark ignition 2-stroke lean burn engine at an area source with a site rating of greater than 500 horsepower

Compliance Date:

- Upon startup

Compliance Requirements:

- Comply with all SI NSPS requirements, if applicable

