



# 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**  
**Major Source New Compression Ignition Limited Use Engine >500**  
**Horsepower (operates <100 hrs/yr)**



Connecticut Department of Energy and Environmental Protection

# Notification Requirements

- Initial Notification only

- 120 days after effective date or construction/reconstruction

- Notification should include:

- Address (physical location) of the affected source
    - Relevant standard, or other requirement, that is the basis of the notification and the source’s compliance date
    - Brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted
    - Whether the source is a major or area source and
    - Statement that the engine has no additional requirements and explain the basis of the exclusion (i.e., that it operates as a limited use engine if it has a site rating of >500 HP at a major source)

*Example<sup>a</sup>*

**Initial Notification of Applicability<sup>b</sup>**  
National Emission Standards for Hazardous Air Pollutants:  
Stationary Reciprocating Internal Combustion Engines  
40 CFR part 63, subpart ZZZZ

Yes, I am subject to 40 CFR part 63, subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

NAICS code(s): \_\_\_\_\_

Compliance Date:  Existing (before 6/12/2006) source: Oct 19, 2013  
 New/reconstructed (on or after 6/12/2006) source: Upon initial startup

**Note: The Oct 19, 2013 compliance date for existing sources applies to the following engine types:**

- Existing stationary spark ignition (SI) RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions
- Existing stationary SI RICE located at an area source of HAP emissions

Company name: \_\_\_\_\_

Facility name (if different): \_\_\_\_\_

Facility (physical location) address: \_\_\_\_\_  
\_\_\_\_\_

My facility is a (please choose one):  Major source  Area source

Owner name/title: \_\_\_\_\_

Owner/company address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

<sup>a</sup>This is an example of the type of information that must be submitted to fulfill the Initial Notification of Applicability Status requirement of 40 CFR part 63, subpart ZZZZ. You may submit the information in another form or format, or you may use this form.  
<sup>b</sup>Initial Notification is due 120 days after the effective date (10/19/2010) of the rule or 120 days after you become subject to the rule.

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# Where do I send notifications?



EPA REGION 1:

US Environmental Protection Agency

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

Boston, MA 02109-3912

Attention: Air Clerk



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# By when must I comply with the rule?

Upon startup



Photo credit: EPA



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# Compression Ignition New Source Performance Standards (CI NSPS)

You must meet the following CI NSPS requirements:

## **Emission and Operating Limits, Testing Requirements:**

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

## **Fuel Requirements:**

- As of October 1, 2007 – 500 ppm sulfur diesel (LSD)
- As of October 1, 2010 – 15 ppm sulfur diesel (ULSD) for engines <30 l/cyl displacement
  - You may use up diesel fuel acquired prior to October 1, 2010 that does not meet the requirements for nonroad diesel fuel.
- As of June 1, 2012 – 1,000 ppm sulfur diesel for engines  $\geq$ 30 l/cyl displacement

NOTE: Per §60.4215(b), CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements listed here. CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements listed here. Special requirements apply to engines used in Alaska. (See §60.4207(d) and §60.4216)

Per §60.4217, owners and operators of CI ICE that do not use diesel fuel may petition EPA for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.



# Compression Ignition New Source Performance Standards (CI NSPS)

## You must meet the following CI NSPS requirements:

### **Compliance Requirements:**

- If you have 2007 model year or later engine with displacement <30 l/cyl, or a fire pump engine that is a 2008-2011 model year or later, depending on engine size, you must:
  - Purchase certified engine
  - Install, configure, operate and maintain engine per manufacturer's instructions/procedures
    - Performance testing not required
    - Can operate differently than manufacturer's recommendations, but must then do performance test to show compliance
- Engines not required to be certified (Choose one of the following to demonstrate compliance):
  - Purchase certified engine
  - Keep records of performance test conducted on similar engine
  - Keep records of engine manufacturer data indicating compliance
  - Keep records of control device vendor data indicating compliance
  - Conduct initial performance test
- Engines  $\geq 30$  l/cyl displacement:
  - Initial performance test
  - Annual performance test
  - Continuously monitor operating parameters



# Engine Certification

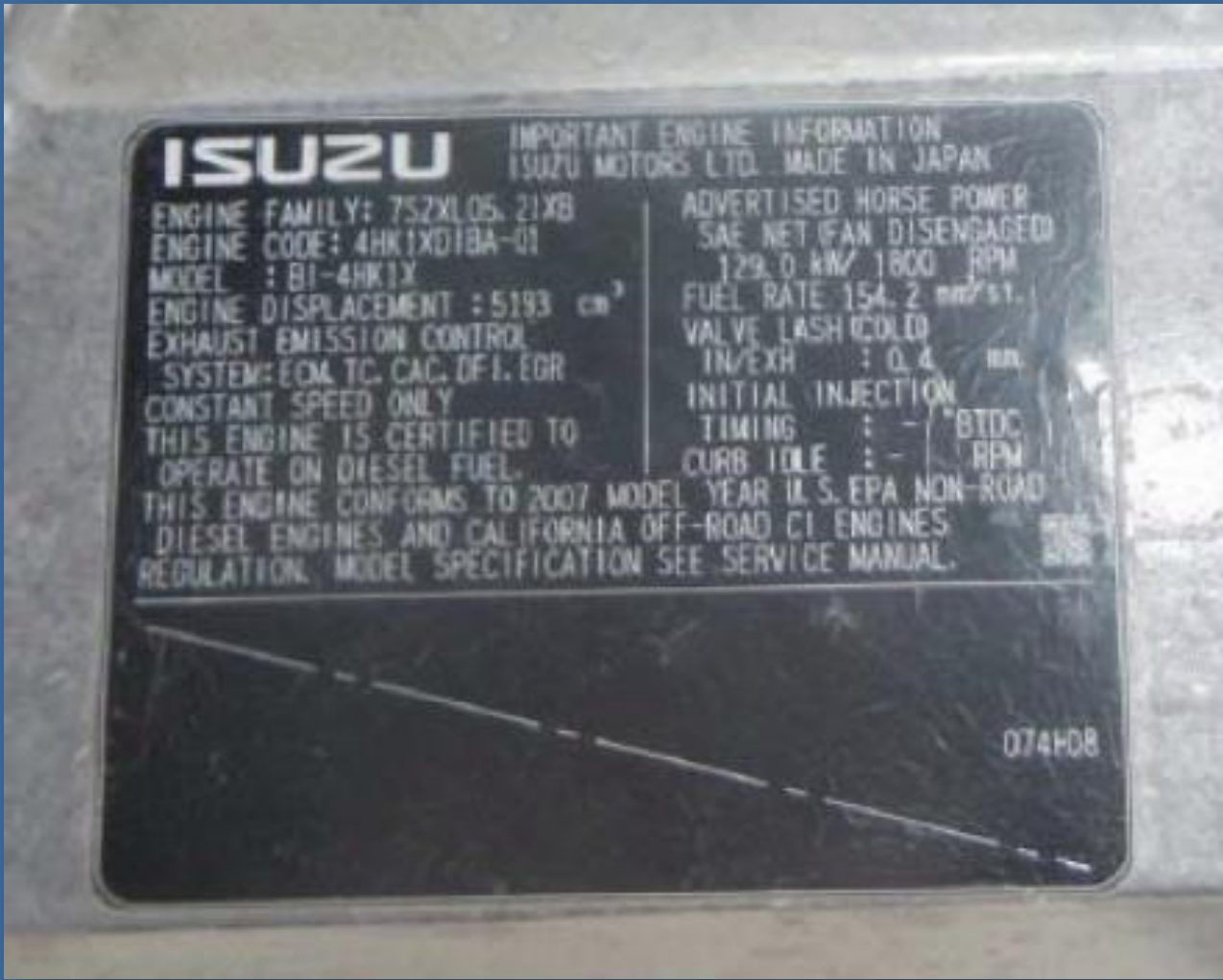


Photo credit: EPA





# EPA Certificate of Conformity

	<b>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY</b> <b>2012 MODEL YEAR</b> <b>CERTIFICATE OF CONFORMITY</b> <b>WITH THE CLEAN AIR ACT OF 1990</b>	<b>OFFICE OF TRANSPORTATION</b> <b>AND AIR QUALITY</b> <b>ANN ARBOR, MICHIGAN 48105</b>	
<b>Certificate Issued To:</b> Generac Power Systems, Inc. (U.S. Manufacturer or Importer)  <b>Certificate Number:</b> CGNXXB06.82NN-012	<b>Effective Date:</b> 10/26/2011  <b>Expiration Date:</b> 12/31/2012	 <b>Byron J. Burkner, Acting Division Director</b> Compliance Division	<b>Issue Date:</b> 10/26/2011  <b>Revision Date:</b> N/A
<b>Manufacturer:</b> Generac Power Systems, Inc. <b>Engine Family:</b> CGNXXB06.82NN <b>Certificate Number:</b> CGNXXB06.82NN-012 <b>Certification Type:</b> Stationary (Part 60) <b>Fuel:</b> Natural Gas (CNG/LNG) <b>Emission Standards:</b> NMHC + NOx ( g/kW-hr ) : 13.4 CO ( g/kW-hr ) : 519 HC + NOx ( g/kW-hr ) : 13.4 <b>Emergency Use Only:</b> Y			
<p>Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 60, 1065, 1068, and 60 ( stationary only and combined stationary and mobile ) and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.</p> <p>This certificate of conformity covers only those new nonroad spark-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60. This certificate of conformity does not cover nonroad engines imported prior to the effective date of the certificate.</p> <p>It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068.20 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void <i>ab initio</i> for other reasons specified in 40 CFR Part 60.</p> <p>This certificate does not cover large nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.</p>			

Photo credit: EPA

## Recordkeeping/Reporting:

- Engine equipped with diesel particulate filter (DPF)
  - Must install a backpressure monitor that notifies when the high backpressure limit of the engine is approached. Keep records of corrective actions taken after the monitor has notified that the limit is approached.
  
- Non-emergency >3,000 HP or having displacement >10 l/cyl, and non-emergency pre-2007 model year >175 HP that are not certified:
  - Submit Initial Notification
  - Keep records of notifications and maintenance
  - If certified, keep engine certification records
  - If not certified, keep records of compliance demonstrations



Engine Category	Date Constructed/Reconstructed/Manufactured	Emission Standards <sup>a,b,c,d</sup>	Importing/Installing Requirements	Compliance Requirements	Testing Reqs	Notification, Reports, and Records Requirements	General Reqs (40 CFR 60)
Pre-2007 model year <10 l/cyl	Commenced construction after 7/11/2005 and manufactured after 4/1/2006	60.4204(a) Table 1	60.4208(a) through (f), (i)	60.4211(a), (b), (g)	60.4212 60.4204(d)	If >2,237 KW (3,000 HP) <u>or</u> >130 KW (175 HP) <u>and</u> not certified: 60.4214(a)	Table 8
Pre-2007 model year 10 l/cyl ≤displacement<30 l/cyl		60.4204(a) 40 CFR 94.8(a)(1)	60.4208(a)-(i)			60.4214(a)	
2007 model year and later <30 l/cyl		60.4204(b) 60.4201		60.4211(a), (c), (g)		If >2,237 KW (3,000 HP) <u>or</u> >10 l/cyl: 60.4214(a)	
ICE ≥30 l/cyl		60.4204(c)(1) through (4)	60.4208(a)-(f), (h), (i)	60.4211(a), (d), (g)		60.4213	
Modified/Reconstructed <30 l/cyl	Modified or reconstructed after 7/11/2005	<u>Pre-2007 Model Year:</u> 60.4204(a) <u>2007 Model Year and Later:</u> 60.4204(b)	60.4208(i)	60.4211(a), (e), (g)	60.4212 60.4204(d)	If >2,237 KW (3,000 HP) <u>or</u> >10 l/cyl <u>or</u> pre-2007 model year and >130 KW (175 HP) <u>and</u> not certified: 60.4214(a)	
Modified/Reconstructed ≥30 l/cyl		60.4204(c)(1) through (4)				60.4213	60.4214(a)

<sup>a</sup>Per 60.4200(e), owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for <1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this rule with regard to such engine requirements in 40 CFR 60.4207.

<sup>b</sup>Per 60.4215(a), ICE with a displacement of <30 l/cyl used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the emission standards in §60.4202 and §60.4205.

<sup>c</sup>CI ICE with a displacement of ≥30 l/cyl that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the emission standards in 60.4215(c).

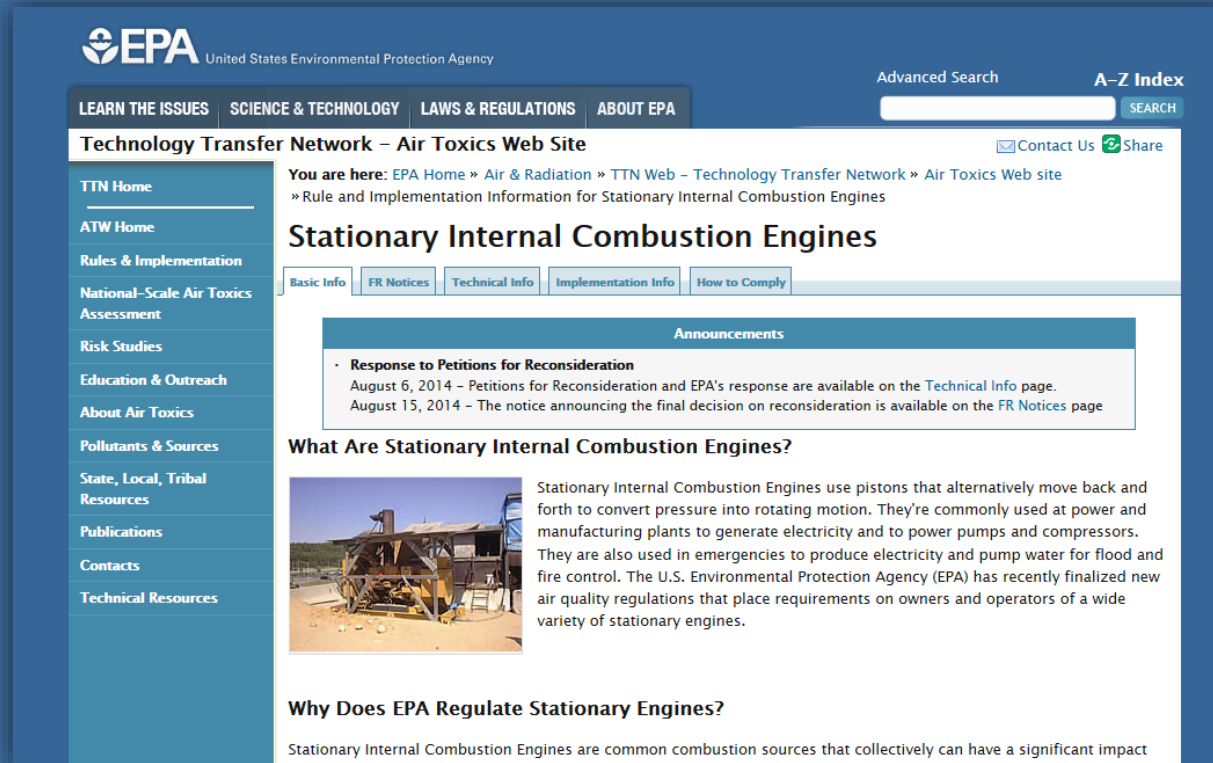
<sup>d</sup>Special requirements apply to engines used in Alaska. Please refer to 60.4216 for the specific requirements and provisions that apply.



# Visit the EPA RICE Compliance Page

[www.epa.gov/ttn/atw/icengines](http://www.epa.gov/ttn/atw/icengines)

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



The screenshot displays the EPA website's "Stationary Internal Combustion Engines" page. At the top, the EPA logo and navigation menu are visible. The page title is "Stationary Internal Combustion Engines". A sidebar on the left lists various resources such as "TTN Home", "ATW Home", "Rules & Implementation", and "Technical Resources". The main content area features an "Announcements" section with a link to "Response to Petitions for Reconsideration" dated August 6, 2014. Below this, a section titled "What Are Stationary Internal Combustion Engines?" includes a photograph of a large industrial engine and a brief description of its function. The page also includes a "Why Does EPA Regulate Stationary Engines?" section.



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# Take Aways

## Engine Type:

- A new or reconstructed compression ignition limited use engine at a major source having a site rating greater than 500 horsepower

## Reporting:

- Initial Notification only
  - 120 days after effective date or construction/reconstruction

## Compliance Date:

- Upon startup

## NSPS

- Comply with all applicable CI NSPS requirements

