



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 Existing Non-Emergency Spark Ignition 2-Stroke Lean
Burn Engine >500 Horsepower



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To comply with this rule, you must meet the following standards:

Every 4,320 hours of operation or annually, whichever comes first, you must:

•Change oil and filter

–Can utilize oil analysis program to extend specified oil change requirement

- Oil analysis must be performed at the same frequency specified above.
- Analysis program must at a minimum analyze: Total Acid Number, viscosity, and percent water content.
- Condemning limits for these parameters are: Total Acid Number increases by >3.0 mg KOH/g from Total Acid Number of the oil when new; viscosity of the oil has changed by $>20\%$ from the viscosity of the oil when new; or percent water content (by volume) is >0.5 .
- If all condemning limits are not exceeded you are not required to change the oil.
- If any limits are exceeded, change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results are received, change the oil within 2 days or before commencing operation, whichever is later.
- Keep records of parameters analyzed, the results, and the oil changes.
- Analysis program must be part of the engine maintenance plan.



To comply with this rule, you must meet the following standards:

Every 4,320 hours of operation or annually, whichever comes first, you must:

- Inspect spark plugs, hoses and belts, and replace as necessary.

At all times you must operate/maintain all equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions.



You must show continuous compliance by...

- Operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions; or
- Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions



Monitoring Requirements



Photo credit: EPA

Minimize the engine's time spent at idle during startup and minimize startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.



To demonstrate compliance with all rule requirements, you must keep records of:

- Maintenance conducted on the engine in order to demonstrate that you operated and maintained the engine and after-treatment control device (if any) according to your own maintenance plan.
- Keep records for 5 years from the date of creation.



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By when must I comply with the rule?

Your compliance date is: **October 19, 2013**



Photo credit: EPA

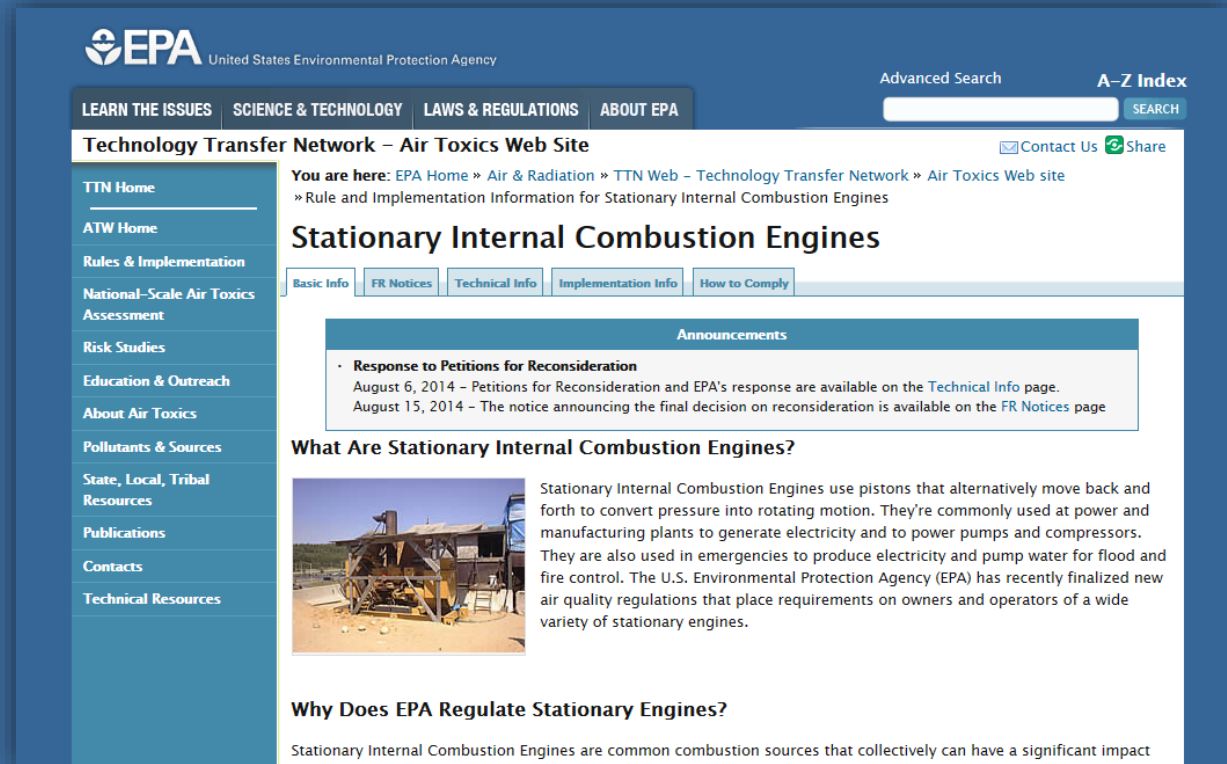


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Visit the EPA RICE Compliance Page

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 navigation and content for Stationary Internal Combustion Engines. The top navigation bar includes 'LEARN THE ISSUES', 'SCIENCE & TECHNOLOGY', 'LAWS & REGULATIONS', and 'ABOUT EPA'. The main content area is titled 'Technology Transfer Network – Air Toxics Web Site' and features a breadcrumb trail: 'You are here: EPA Home » Air & Radiation » TTN Web – Technology Transfer Network » Air Toxics Web site » Rule and Implementation Information for Stationary Internal Combustion Engines'. The main heading is 'Stationary Internal Combustion Engines', with sub-sections for 'Basic Info', 'FR Notices', 'Technical Info', 'Implementation Info', and 'How to Comply'. An 'Announcements' section highlights a 'Response to Petitions for Reconsideration' from August 6, 2014, and August 15, 2014. Below this, a section titled 'What Are Stationary Internal Combustion Engines?' includes a photograph of a large industrial engine and a descriptive paragraph. A final section, 'Why Does EPA Regulate Stationary Engines?', begins with the text: 'Stationary Internal Combustion Engines are common combustion sources that collectively can have a significant impact'.



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Take Aways

Engine Type:

- An existing non-emergency spark ignition 2-stroke lean burn engine at an area source with a site rating of greater than 500 HP

Standards:

- Change oil and filter (can use oil analysis program) and inspect spark plugs, hoses, and belts and replace as necessary every 4,320 hours or annually

Monitoring:

- Operate/maintain engine according to manufacturer's instructions or develop your own maintenance plan



Take Aways

Recordkeeping:

- Keep records of engine maintenance
- Retain records for 5 years

Testing and Reporting:

- None

Compliance Date:

- October 19, 2013

