

National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE Rule) Training Module 40 CFR 63 Subpart ZZZZ

Script- Area Source Existing Emergency Spark Ignition Engine >500 Horsepower

NARRATOR:

[Slide 2:]

Welcome to the Connecticut Department of Energy & Environmental Protection's Online Training for the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines, also known as the RICE Rule!

This tool is designed to help owners and operators of reciprocating internal combustion engines, also known as RICE, determine their requirements under 40 CFR Section 63, subpart ZZZZ. By answering the successive questions, your specific requirements have been estimated. Please note that they may not be complete, and refer any questions to your local authority.

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We have established that your engine is an existing emergency spark ignition engine, greater than 500 horsepower, located at an area source. Now, let's discuss your requirements.

Every 500 hours of operation or annually, whichever comes first, you must change the oil and filter. Note that an oil analysis program can be used to extend the oil change requirement; however, the oil analysis program must meet the following requirements:

- The oil analysis must be performed every 500 hours of operation or annually, whichever comes first. The oil analysis must analyze the parameters shown here to demonstrate that they do not exceed certain condemning limits, otherwise you are required to change the oil within two business days of receiving the results of the analysis or before operating the engine.

In addition to changing the oil and filter, you must also inspect all hoses and belts and replace as necessary every 500 hours of operation or annually, whichever comes first.

Every 1,000 hours of operation or annually, whichever comes first, you must inspect the spark plugs.

In addition to these work practice standards, be sure to operate and maintain all equipment in accordance with safety and good air pollution control practices for minimizing emissions.

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Starting in 2015, if you operate for local reliability criteria, you must:

- Submit an annual report each year. The report must contain:
 - The address where the engine is located
 - The date of the report
 - The beginning and ending dates of the reporting period
 - The engine site rating and model year
 - The latitude and longitude of the engine
 - Hours spent operating to supply power as part of a financial arrangement with another entity.
 - If no deviations occurred from the fuel requirements that apply to the engine, a statement indicating so.

- Lastly, if there were any deviations, information on the number of deviations, cause, and the corrective actions taken.
- The first report will cover calendar year 2015, and is due on March 31st, 2016.
- The annual report will be required to be submitted electronically in the “Compliance and Emissions Data Reporting Interface,” which can be accessed through EPA’s Central Data Exchange using the link provided here.

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Now, let’s discuss your monitoring requirements. You must operate and maintain the engine and any after-treatment control device according to the manufacturer’s instructions, *or* develop your own maintenance plan which provides for maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

A non-resettable hour meter must be installed to record hours of operation.

You must minimize the engine’s time at idle during startup. Also, minimize the engine’s startup time to a period needed for appropriate and safe loading; this period cannot exceed 30 minutes.

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The following constitute the compliance requirements for your engine.

- There is no limit on hours of operation for emergency service (for example, in the case of a hurricane or ice storm).
- You may operate the engine up to 100 hours per year for:
 - Maintenance checks and readiness testing, as long as the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. You can petition EPA for additional hours to be used for maintenance checks and readiness testing. However, a petition is not necessary if you keep records showing that federal, state, or local standards require maintenance and testing of the engine in excess of 100 hours per calendar year.
- 50 of the 100 hours of operation can be used for non-emergency purposes. These 50 hours cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement *unless all* of the conditions shown here are met.
- If your emergency engine operates in excess of the allowable hours for non-emergency purposes, or fails to meet any other requirements specified for emergency engines, the engine must meet all non-emergency engine requirements.
- In addition to meeting these federal emergency engine requirements, emergency engines must meet any applicable State requirements for emergency engines.

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Now, we will discuss the Connecticut emergency engine requirements. According to the Regulations of Connecticut State Agencies Section 22a-174-22(a)(3), an emergency engine provides mechanical or electrical power only during testing and scheduled maintenance, during an actual emergency, or in accordance with a contract ensuring electricity for use within the state during an OP 4, Step 6 event. An engine for which the owner or operator is party to any other agreement to sell electrical power from such engine to an electricity supplier, or otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability is **not** considered an emergency engine in the state of Connecticut.

Engines operating under Sections 22a-174-3b and 3c of the Regulations of Connecticut State Agencies are subject to additional requirements.

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This table shows a comparison of federal and State of Connecticut emergency engine requirements. Take note that engines operating under Section 3b must limit emergency operation to 300 hours per year, and must limit nongaseous fuel consumed by the engine to 0.0015% sulfur content, dry basis. Engines operating pursuant to Section 3c have no limit on emergency hours of use or fuel sulfur content; however, the facility's fuel purchases are very limited.

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In order to demonstrate that you are in compliance with all rule requirements, you must keep the following records:

- The maintenance conducted on the engine and after-treatment control device, if any, to show that they were operated and maintained according to your site-specific maintenance plan
- Records of hours of operation, as recorded through the non-resettable hour meter
- Records indicating the number of hours the engine was used for emergency operation. Each instance of emergency operation should also provide an explanation as to what classified the operation as emergency.
- Records of hours used for non-emergency operation, if applicable
- Records of the time the engine is operated if it is used as part of a financial arrangement.

All records must be kept for 5 years from the date of creation.

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You must be in compliance with all applicable requirements of this rule by the compliance date specified here.

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If you would like more information about the RICE rule, please visit the EPA RICE Compliance web page at the address provided. This site provides resources such as Q and A documents, fact sheets, sample notification forms, and recordings of webinars, all of which are designed to help you comply with this rule.

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Let's summarize the requirements for your existing emergency spark ignition engine, greater than 500 horsepower located at an area source.

- You must change the oil and filter, inspect the hoses and belts and replace as necessary every 500 hours of operation or annually, whichever comes first
- You must inspect the spark plugs every 1,000 hours of operation or annually, whichever comes first
- You must operate and maintain the unit according to the manufacturer's written instructions or develop your own site-specific maintenance plan
- You must install a non-resettable hour meter

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- There is no limit on the number of hours that may be used for emergency operation, unless the unit is subject to Section 22a-174-3b or 3c of the Regulations of Connecticut State Agencies.
- You may operate the engine a total of 100 hours per year for maintenance and testing.
- 50 of the 100 hours of operation can be used for non-emergency purposes. These 50 hours cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement *unless all* of the conditions shown here are met.

- Emergency engines must meet all applicable state requirements in addition to the federal requirements. Emergency engines located in Connecticut cannot operate during non-emergencies.
- Starting in 2015, if the unit operates for local reliability criteria, you must submit an annual report.
- If an emergency engine operates for more than allowable hours for non-emergency purposes or fails to meet any other emergency engine requirements, it will need to meet all non-emergency engine requirements.
- You must keep records of maintenance conducted, total hours of operation, hours of emergency operation including what classified the operation as emergency, hours of non-emergency operation (if applicable), and the time of operation during use as part of a financial arrangement.
- All records must be retained for 5 years.
- Your engine must be in compliance with all requirements of this rule by the date specified here.