

How to Comply with EPA Regulations for Stationary Reciprocating Internal Combustion Engines (“RICE”)



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Compliance Requirements & Challenges

- Be aware of “what is an emergency engine?” as defined in final RICE NESHAP/NSPS amendments, properly classify your engines by compliance date & manage accordingly
- Use engine too much (time limits) – sources may become subject to RICE NESHAP non-emergency engine requirements!
- Be aware of new distinction between emergency demand response (up to 100 hours/yr) & operation to supply power for local system reliability as part of financial arrangement w. another entity (up to 50 hours/yr, meet criteria)
- Submit overdue initial notifications ASAP

Compliance Requirements & Challenges – contd.

- If operating an emergency engine, record hours of use (non-resettable hour meter required)
- Record maintenance performed - ZZZZ 63.6655(f)
- Operate/maintain acc. to manufacturer's written instructions or develop maintenance plan – ZZZZ 63.6625(e)
- By RICE NESHAP compliance dates (5/3/13 CI, 10/19/13 SI) must have controls installed & meet all other compliance requirements; stack test due 180 days after
- One year compliance extensions to install controls – due date 1/3/13 for CI; 6/21/13 for SI

Preparing for a Performance Test

- Submit Notification of Performance Test at least 60 days in advance of test date
- EPA region may require test protocol for performance tests (submit with notification); may observe test; procedures vary by region
- EPA Guidance Documents 042 and 043 for Test Protocols and Test Reports
 - <http://www.epa.gov/ttn/emc/guidInd.html>

Where to Locate Performance Test Requirements

- III- 60.4212, 60.4213 and Table 7
- JJJ- 60.4244 and Table 2
- ZZZ- 63.6620 and Table 4
- These provisions enumerate parameters to be measured and sampling methods to be used.

Test Program Sequence of Events

1. **Select an emissions testing company**
Criteria: experience and recommendations
2. **Testing company conducts a site visit**
 - a. determines if stack duct extensions needed and delineates where to place the sampling ports in the inlet and outlet ducts on the control device.
 - b. electrical power for sampling equipment
 - c. how the power out is determined and recording of same.

Test Program Sequence of Events

- d. safety requirements
 - e. requirements for safe access to ports - e.g., scaffold or lift
 - f. fuel flow measurements
3. Testing company prepares site-specific test plan according to Guideline Document GD-042
- a. delineates parameters to be measured
 - b. delineates sampling and analytical methods

Test Program Sequence of Events

- c. delineates number of test runs, duration of test runs and minimum sample volumes for each method.
- d. describes facility engine type, max load, fuel type, load to be used during test; other operational parameters.
- e. delineates sampling locations,
- f. calculations,
- g. calibrations.

Test Program Sequence of Events

4. Source submits test plan to EPA and state agency at least 60 days prior to the test date.
5. EPA/state agency reviews the test plan and either accepts as is or requests revisions.
6. If needed the test company revises the test plan and the source resubmits to agency.

Test Program Sequence of Events

7. Agency accepts the test plan.
8. Agency may request an onsite pretest meeting.
9. Testing company conducts the test program.

Test Program Sequence of Events

10. Test company prepares an emissions test report according to Guideline Document GD-043, and submits to source.
11. Source submits report to agency within 45-60 days of completion of test.
12. EPA reviews the report and either accepts it or requests clarifications, revisions etc.
13. Test company addresses comments & submits final document to source, which then submits final document to agency.

Considering Engine Retrofit or Replacement

- Explore availability of new technologies
- Get several quotes – they may vary widely
- Compare efficiency of current & new engines & fuel costs
- Carefully assess capital and operating cost tradeoffs – use business math techniques like calculating Net Present Value of investment & rate of return

Some Useful Compliance Tools

- EPA R. 1 & 10 RICE webpages - www.epa.gov/region1/RICE, http://yosemite.epa.gov/R10/airpage.nsf/Enforcement/rice_rules - “plain language” summary of RICE NESHAP & NSPS, sample Initial Notification and Notification of Compliance Status Forms, events, state contacts, links
- EPA Technology Transfer Network Air Toxics website RICE page - www.epa.gov/ttn/atw/rice/ricepg/html#IMP - proposed and final rules, fact sheets on Jan. 2013 NESHAP & NSPS amendments, link to Federal Register final amendments, Q & A
- EPA Combustion Portal – www.combustionportal.org, “calculator” for CI RICE NESHAP; summary of NSPS standards

Need More Help or Info?

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Regional RICE Contacts
for Other EPA Regions – address your questions to
RICE contact for the region where the engine is located

<http://www.epa.gov/ttn/atw/rice/EPARegionalRICEcontacts.pdf>

EPA Regions

