

WHY MIRATECH SOLUTIONS?

- Track record: over 12,000 installations worldwide
- Comprehensive solutions: 100 - 10,000 hp engines
- Better-designed, better-built, longer-lasting, better-performing systems
- Support for performance testing
- On-going compliance assured: *all* regulated emissions for any regulations, anywhere
- Custom engineering – tailored to your needs
- Fast turntimes
- Prompt, responsive service

RICE NESHAP Emissions Standards

HP	Standard At 15% O ₂ *	MIRATECH Solution
Existing, Non-Emergency Stationary Gas (SI) Engines Major Sources		
100 - 500 HP		
2SLB	225 ppmvd CO	Oxidation Catalyst
4SLB	47 ppmvd CO	Oxidation Catalyst
4SRB	10.3 ppmvd HCHO	3-Way Catalyst
Landfill/Digester Gas	177 ppmvd CO	3-Way Catalyst Or Oxidation Catalyst
Area Sources		
>500 hp		
4SRB	2.7 ppmvd HCHO or 76% HCHO Reduction **	3-Way Catalyst
4SLB	47 ppmvd CO or 93% CO Reduction **	Oxidation Catalyst

ppmvd: parts per million by volume, dry measure CO: Carbon Monoxide HCHO: Formaldehyde (CH₂O)
* Non-startup emissions ** Operator's choice

Major Source: any site emitting *either* 10 or more tons per year of any *one* HAP (e.g., formaldehyde) *or* 25 tons or more per year of *any combination* of HAPs (e.g., formaldehyde, acrolein, etc.)

Area Source: any site that is not a *major source*.

Existing Non-Emergency Engines:

- Engines used at *major sources* of HAPs: 500 hp or less and built before 6/12/06
- Engines used at *major sources* of HAPs: greater than 500 hp and built before 12/19/02
- Engines used at *area sources* of HAPs: all horsepower sizes built before 6/12/06

Quote Request:
[Click here](#)

RICE NESHAP

Reciprocating Internal Combustion Engines – National Emissions Standards for Hazardous Air Pollutants

Final Rule published August 20, 2010
Full compliance deadline - Stationary Spark-Ignited Gas Engines: October 19, 2013

Designed to reduce RICE emissions of 189 EPA-listed Hazardous Air Pollutants (HAPs)

What it means to you

Depending on engine hp and siting, requirements may include:

- » Oxidation or 3-Way Catalyst to meet emissions limits
- » Monitoring to continuously measure pre-/post-catalyst backpressure and exhaust temperature
- » Limits on startup time
- » Performance tests to demonstrate emissions compliance
- » Maintenance requirements

Emergency Engines: Exempt from HAPs Emissions Standards

- » Emergency engine exemptions do **not** apply to engines used in demand-response, peak shaving or storm-avoidance applications.
- » **Emergency engines run only in emergencies or during a loss of the normal power** (apart from maintenance & testing runs). Examples: standby generators, flood control pumps, etc.

Monitoring, Testing And Other Requirements:
Please see the next page. [Click here.](#)

RICE NESHAP

Monitoring, Testing And Other Requirements: Existing Non-Emergency SI Engines

HP	Source Category	Continuous Parametric Monitoring (CPMS)*	Testing**	Other
>500	Major & Area	Yes	Initial compliance verification with Oxidation / 3-Way Catalyst <ul style="list-style-type: none"> • Re-test after 8760 hrs. • Continuous monitoring & recording: Catalyst Inlet Temp. • Measure Pressure Drop (not to exceed 2 inches) at catalyst monthly 	<ul style="list-style-type: none"> • Oil & filter changes: various required intervals, depending on engine type and size • Inspection & as-needed replacement of spark plugs, belts & hoses: various required intervals, depending on engine type and size
100 - 500	Major	No	Initial compliance verification with Oxidation / 3-Way Catalyst <ul style="list-style-type: none"> • Re-test after 8760 hrs. • Measure Pressure Drop (not to exceed 2 inches) at catalyst monthly 	<ul style="list-style-type: none"> • Oil & filter changes: various required intervals, depending on engine type and size • Inspection & as-needed replacement of spark plugs, belts & hoses: various required intervals, depending on engine type and size
100-500	Area	No	No	<ul style="list-style-type: none"> • Oil & filter changes: various required intervals, depending on engine type and size • Inspection & as-needed replacement of spark plugs, belts & hoses: various required intervals, depending on engine type and size

* CPMS: Continuous Parametric Monitoring System performance standards scheduled for finalization in August, 2010

** Requirements may vary according to engine type and size. Please review the EPA Final Rule.

SI RICE NESHAP Information

National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines: Final Rule (75 FR 51570)
<http://www.epa.gov/ttn/atw/rice/ricepg.html>

RICE NESHAP Applicability Flowchart (EPA) [Click here](#)

Quote Request:
[Click here](#)

The information contained in this document is provided by MIRATECH Corporation (MIRATECH) solely as a convenience to our customers without warranty of any kind, expressed or implied, including, but not limited to, accuracy or non-infringement. MIRATECH assumes no responsibility for errors or omissions in this document or other documents referenced by or linked to this document. This document could include technical or other inaccuracies. MIRATECH may change the information provided in this document or publications linking to this document at any time. By using this document or information contained within it, you agree to indemnify MIRATECH, its officers, directors, employees, agents, distributors and affiliates for any claims, damages, losses and causes of action arising out of your breach or alleged breach of this agreement.