

## What Is The Compliance Date?

- New Sources: July 1, 2008.
- Existing Sources: Not applicable; existing source regulation yet to be promulgated.
- A stationary RICE with a site rating of  $\leq 500$  HP located at a major source of HAP emissions is new if you commenced construction on or after June 12, 2006.
- A stationary RICE located at an area source of HAP emissions is new if you commenced construction on or after June 12, 2006.

## What Are The Permitting Requirements?

- Owners and operators of area sources are exempt from title V provided they are not required to obtain a permit for another reason.

## What Records Are Required?

### Reporting:

- Owners and operators of certified engines < 500 HP are not required to submit initial notification.
- Owners and operators who conduct performance testing are required to submit a Notification of Compliance Status, including the performance test results, within 60 days of completion of each performance test.

### Recordkeeping

- Owners and operators of all engines (certified and non-certified) are required to maintain records of proper maintenance and documentation that the engine meets the emission standards.
- Owners and operators of non-certified engines must keep a maintenance plan.
- For emergency engines greater than 25 HP that do not meet the standards applicable to non-emergency engines, owners and operators must keep records of the hours of operation of the engine.

## You can also contact your Regional EPA air toxics office at the following numbers:

Address	States	Website/ Phone Number
Region 1 1 Congress Street Suite 1100 Boston, MA 02114-2023	CT, MA, ME, NH, RI, VT	<a href="http://www.epa.gov/region1">www.epa.gov/region1</a> (888)372-7341 (617) 918-1650
Region 2 290 Broadway New York, NY 10007-1866	NJ, NY, PR, VI	<a href="http://www.epa.gov/region2">www.epa.gov/region2</a> (212) 637-4023
Region 3 1650 Arch Street Philadelphia, PA 19103-2029	DE, MD, PA, VA, WV, DC	<a href="http://www.epa.gov/region3">www.epa.gov/region3</a> (215) 814-2068
Region 4 Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303-8960	FL, NC, SC, KY, TN, GA, AL, MS	<a href="http://www.epa.gov/region4">www.epa.gov/region4</a> (404) 562-9131 (800) 241-1754
Region 5 77 West Jackson Blvd. Chicago, IL 60604-3507	IL, IN, MI, WI, MN, OH	<a href="http://www.epa.gov/region5">www.epa.gov/region5</a> (312) 886-6812 (312) 353-6684 (312) 886-6798
Region 6 1445 Ross Avenue Suite 1200 Dallas, TX 75202-2733	AR, LA, NM, OK, TX	<a href="http://www.epa.gov/region6">www.epa.gov/region6</a> (800) 887-6063* (214)-665-7250 (214) 665-7224
Region 7 901 North Fifth Street Kansas City, KS 66101	IA, KS, MO, NE	<a href="http://www.epa.gov/region7">www.epa.gov/region7</a> (800) 223-0425 (913)-551-7003
Region 8 1595 Wynkoop St Denver, CO 80202-1129	CO, MT, ND, SD, UT, WY	<a href="http://www.epa.gov/region8">www.epa.gov/region8</a> (800) 227-8917* (303) 312-6460
Region 9 75 Hawthorne Street San Francisco, CA 94105	CA, AZ, HI, NV, GU, AS, MP	<a href="http://www.epa.gov/region9">www.epa.gov/region9</a> (415) 947-8715
Region 10 1200 6 <sup>th</sup> Ave. Suite 900, AWT-107 Seattle, WA 98101	AK, ID, WA, OR	<a href="http://www.epa.gov/region10">www.epa.gov/region10</a> (800) 424-4372* (206) 553-6220

\* For sources within the region only.

## For More Information

Copies of the rule and other materials are located at:  
<http://www.epa.gov/ttn/atw/area/arearules.html>

For more information on state requirements, please contact your state representatives at:  
[http://www.epa.gov/ttn/atw/area/table\\_state\\_contacts.doc](http://www.epa.gov/ttn/atw/area/table_state_contacts.doc) or,  
<http://www.4cleanair.org/contactUsaLevel.asp>

United States  
Environmental Protection  
Agency

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

Office of Air Quality Planning & Standards (EI 43-02)



# Summary of Regulations Controlling Air Emissions from

## RECIPROCATING INTERNAL COMBUSTION ENGINES



# NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS NESHAP (SUBPART ZZZZ)

## FINAL RULE



**INTERNAL COMBUSTION  
ENGINES  
(SUBPART ZZZZ)**

**What Is an Area Source?**

- Any source that is not a major source. (A major source is a facility that emits, or has the potential to emit in the absence of controls, at least 10 tons per year (TPY) of individual hazardous air pollutants (HAP) or 25 TPY of combined HAP.)

**Who Does This Rule Apply To?**

- New and reconstructed stationary reciprocating internal combustion engines (RICE) with a site rating of  $\leq 500$  horsepower (HP) located at major sources.
- New and reconstructed stationary RICE located at area sources.
- Existing engines located at major and area sources will be addressed in a separate regulation in early 2009.

**What Am I Required to Do?**

- Meet emission standards in 40 CFR part 60 subpart IIII or 40 CFR part 60 subpart JJJJ as applicable, based on engine type, fuel type, and manufacturing date. (See Table 1.)
- Final standards apply to stationary engines subject to the NESHAP that commence reconstruction on or after June 12, 2006. Reconstruction criteria are provided in 40 CFR 63.2.
- Owners and operators of new or reconstructed spark ignited 4-stroke lean burn RICE greater than or equal to 250 and less than or equal to 500 HP located at major sources are required either to reduce CO emissions by 93% or more, or limit the concentration of formaldehyde in the engine exhaust to 14 ppmvd or less, at 15% O<sub>2</sub>. These engines would also be required to meet 40 CFR part 60 subpart JJJJ, but do not have to comply with the CO standards of 40 CFR 60 subpart JJJJ if in compliance with the NESHAP.

**Table 1. Emission Limits for New and Reconstructed Stationary RICE  $\leq 500$  HP at Major Sources and New and Reconstructed Stationary RICE at Area Sources**

Engine Power	Engine Type and Fuel	Manufacture Date	Emission Requirement g/KW-hr or (g/HP-hr) or [ppmvd at 15 percent O <sub>2</sub> ]			
			HC+NO <sub>x</sub>	NO <sub>x</sub>	CO	VOC
25 < HP < 100	Non-emergency SI Natural Gas and Non-emergency SI Lean Burn LPG	July 1, 2008	3.8 (2.8)		6.5 (4.8)	
		July 1, 2008 (severe duty)	3.8 (2.8)		200.0 (149.2)	
100 $\leq$ HP < 500	Non-emergency SI Natural Gas and Non-emergency SI Lean Burn LPG	July 1, 2008		(2.0) [160]	(4.0) [540]	(1.0) [86]
		January 1, 2011		(1.0) [82]	(2.0) [270]	(0.7) [60]
HP < 500	Non-emergency SI Landfill or Digester Gas	July 1, 2008		(3.0) [220]	(5.0) [610]	(1.0) [80]
		January 1, 2011		(2.0) [150]	(5.0) [610]	(1.0) [80]
25 < HP < 130	Emergency	January 1, 2009	(10.0)		(387)	
$\geq 130$ HP	Emergency	January 1, 2009		(2.0) [160]	(4.0) [540]	(1.0) [86]

**Compliance Demonstration**

- Owners and operators that purchase manufacturer-certified engines may demonstrate compliance by operating and maintaining the engine according to the manufacturer's emission-related instructions.
- Owners and operators that purchase engines that have never been certified are required to conduct an initial performance test to demonstrate compliance.

**What are the Impacts?**

- Stationary RICE are already well-controlled as a result of other standards. It is expected that about 86 tpy of HAP will be reduced in 2015 due to the NESHAP alone.
- Total national capital cost is estimated to be \$3 million in 2015 with a total annual cost of also \$3 million in 2015.