



**U.S. EPA’s NESHAP for RICE: A Summary**

In March 2010, EPA promulgated its final rule on National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP for RICE). This regulation, effective on May 3, 2010, sets emissions standards for existing stationary diesel engines at both area and major emissions sources and although some may be met through management practices, many will also need to install emissions control equipment that would limit CO emissions by up to 70 percent. EPA estimates that 900,000 engines will be affected by this regulation. Compliance with the applicable emission and operating limitations is required by May 3, 2013. A summary of the rule, including its application and compliance requirements are provided below. A copy of the final rule is available at: [www.epa.gov/ttn.oarpg/new.html](http://www.epa.gov/ttn.oarpg/new.html).

**Background**

In 2004, EPA regulated emissions for **existing as well as new and reconstructed** stationary engines **greater than 500hp at major sources** under 40 CFR part 63, subpart ZZZZ.

In 2008, EPA regulated emissions for **new and reconstructed** stationary engines for **all sizes at area sources** and those **under 500 hp at major sources** (New Source Performance Standards).

The current regulation is a revision of EPA’s 2004 regulations to add requirements for **existing** stationary engines for **all sizes at area sources** and those **less than or equal to 500hp at major sources**.

**Regulated Emissions**

Under this rule, EPA selected formaldehyde as a surrogate for HAP emissions since it is the HAP in highest concentration from stationary engines. EPA has proven carbon monoxide (CO) as a surrogate for formaldehyde and is therefore finalizing the standard in terms of CO emissions.

**Application**

The final rule applies to existing stationary diesel engines based upon their size, age and location. Those covered under the rule include:

<b>Siting (Location)</b>	<b>Size</b>	<b>Age</b>
Area Source	All sizes	Constructed or reconstructed before June 12, 2006
Major Source	Less than or equal to 500HP	Constructed or reconstructed before June 12, 2006
Major Source	Greater than 500 HP	Constructed or reconstructed before December 19, 2002

*Major Source: Any source that emits or has the potential to emit 10 tons/yr or more of any single HAP or 25 tons/yr or more of all HAPs combined.*

*Area Source: Any source that is not a major source.*

Existing stationary emergency engines at area sources located at residential, commercial, or institutional facilities are not part of the source category and therefore are not subject to any requirements under the rule.

Existing stationary non-emergency diesel engines greater than 300 hp located in area sources in Alaska not accessible by the Federal Aid Highway System do not have to meet the CO emission standards, but must meet the management practices for non-emergency engines less than or equal to 300hp.

**Regulations**

Type of Air Toxic Emissions Source	Date of Construction or Reconstruction	Engine Use	Engine Size	Emission Standard
Area	Prior to 6/06	Emergency	All HP	Defined management practices
Area	Prior to 6/06	Non-emergency	≤300HP	Defined management practices
Area	Prior to 6/06	Non-emergency	300<HP≤500HP	49ppmvdCO at 15% O <sub>2</sub> or 70% CO reduction
Area	Prior to 6/06	Non-emergency	>500 HP	23 ppmvd CO at 15% O <sub>2</sub> or 70% CO reduction
Major	≤500HP prior to 6/06	Emergency	100≤HP≤500	Defined work practices
Major	≤500HP prior to 6/06	Non-emergency	<100HP	Defined work practices
Major	≤500HP prior to 6/06	Non-emergency	100≤HP≤300	230 ppmvd CO at 15% O <sub>2</sub>
Major	≤500HP prior to 6/06	Non-emergency	300<HP≤500	49 ppmvd CO at 15% O <sub>2</sub> or 70% CO reduction
Major	>500 HP prior 12/02	Non-emergency	>500HP	23 ppmvd CO at 15% O <sub>2</sub> or 70% CO reduction

The rule requires the use of ULSD for diesel-fueled stationary non-emergency diesel engines greater than 300 HP.

Owners and operators must limit engine startup time to no more than 30 minutes and must minimize the engine’s time spent at idle during startup.

Owners and operators of existing stationary non-emergency engines greater than 100hp at major and area sources must conduct initial performance tests and those greater than 500hp must also conduct regular tests to demonstrate compliance.

Owners and operators of existing stationary non-emergency engines greater than 300 hp that are not already equipped with a closed crankcase ventilation system must install one that prevents crankcase emissions into the atmosphere or install an open crankcase filtration emission control system that reduces the crankcase emissions by filtering the exhaust stream to remove oil mist, particulates and metals.

Owners and operators of existing stationary emergency engines must keep records of their hours of operation and those for stationary engines at area sources which are subject to management practices are required to keep records that show management practices are being met.

#### **Additional Considerations**

Engines participating in demand response programs are not considered to be emergency engines.

Regulations affecting stationary spark-ignited engines were issued by EPA on August 10, 2010. A copy of the regulations is available at: <http://www.epa.gov/ttn/atw/rice/ricepg.html>.