

40 CFR Part 63, Subpart ZZZZ
National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)
Summary of Requirements for Emergency Generators

Engine Category	Major or Area Source for HAPs	Date Constructed	Emission Limitations	Operating Limitations	Fuel Requirements	Performance Tests	Monitoring, Installation, Collection, Operation and Maintenance Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Recordkeeping Requirements	Reporting Requirements	Compliance Date
Emergency ≤ 500 Horsepower													
Existing Emergency Compression Ignition ≤500 Brake Horsepower	Area	Before 6/12/2006	1) Change oil and filter and inspect all hoses and belts annually or every 500 hours of operation; and 2) Inspect air cleaner annually or every 1,000 hours	No Requirements	No Requirements	No Requirements	1) Must operate engine to manufacturer's emission specifications or develop own maintenance plan; and 2) Minimize engine's idle time during startup, and 3) Limit startup time to 30 minutes; and 4) Install non resettable hour meter	No Requirements	1) Non emergency operation cannot exceed 50 hours per year (included in 100 hours per year limitation); and 2) No operation limit in emergency situations; and 3) Maintenance situations limited to 100 hours per year	No Requirements	1) Hours of operation from the non-resettable hour meter; and 2) Maintenance records	No Requirements	03-May-13
New and Reconstructed Emergency ≤500 Brake Horsepower	Area	On or After 6/12/2006	Engines are subject to 40 CFR Part 60, Subpart IIII (Compression Ignition - NSPS) or Subpart JJJJ (Spark Ignition - NSPS), as applicable.										
Existing Emergency Compression Ignition ≤500 Brake Horsepower	Major	Before 6/12/2006	1) Change oil and filter and inspect all hoses and belts annually or every 500 hours of operation; and 2) Inspect air cleaner annually or every 1,000 hours	No Requirements	No Requirements	No Requirements	1) Must operate engine to manufacturer's emission specifications or develop own maintenance plan; and 2) Minimize engine's idle time during startup, and 3) Limit startup time to 30 minutes; and 4) Install non resettable hour meter	No Requirements	1) Non emergency operation cannot exceed 50 hours per year (included in 100 hours per year limitation); and 2) No operation limit in emergency situations; and 3) Maintenance situations limited to 100 hours per year	No Requirements	1) Hours of operation from the non-resettable hour meter; and 2) Maintenance records	No Requirements	03-May-13
New and Reconstructed Emergency ≤500 Brake Horsepower	Major	On or After 6/12/2006	Engines are subject to 40 CFR Part 60, Subpart IIII (Compression Ignition - NSPS) or Subpart JJJJ (Spark Ignition - NSPS), as applicable.										
Emergency > 500 Horsepower													
Existing Emergency Compression Ignition >500 Brake Horsepower	Area	Before 6/12/2006	1) Change oil and filter and inspect all hoses and belts annually or every 500 hours of operation; and 2) Inspect air cleaner annually or every 1,000 hours	No Requirements	No Requirements	No Requirements	1) Minimize engine's idle time during startup; and 2) Minimize engine's startup time; and 3) Install non resettable hour meter	No Requirements	1) Non emergency operation cannot exceed 50 hours per year (included in 100 hours per year limitation); and 2) No operation limit in emergency situations; and 3) Maintenance situations limited to 100 hours per year	No Requirements	1) Hours of operation from the non-resettable hour meter; and 2) Maintenance records	No Requirements	03-May-13
New and Reconstructed Emergency >500 Brake Horsepower	Area	On or After 6/12/2006	Engines are subject to 40 CFR Part 60, Subpart IIII (Compression Ignition - NSPS) or Subpart JJJJ (Spark Ignition - NSPS), as applicable.										
Existing Emergency Compression Ignition >500 Brake Horsepower	Major	Before 12/19/2002	No Requirements										
New and Reconstructed Emergency >500 Brake Horsepower	Major	On or After 12/19/2002	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	1) Submit initial notification: If startup occurred before August 16, 2004, initial notification due by December 13, 2004; or if startup occurred August 16, 2004, or later, initial notification due within 120 days after you become subject to this subpart	No Requirements	No Requirements	Not Applicable

National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
Summary of Requirements for Non-Emergency Engines

Engine Category	Major or Area Source for HAPs	Date Constructed	Emission Limitations	Operating Limitations	Fuel Requirements	Performance Tests	Monitoring, Installation, Collection, Operation and Maintenance Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Recordkeeping Requirements	Reporting Requirements	Compliance Dates
Non-Emergency ≤ 500 Horsepower													
Existing Non-Emergency Compression Ignition 300+ Brake Horsepower ≤ 500	Area	Before 6/12/2006	1) Limit carbon monoxide concentration in exhaust to 49 parts per million by volume dry or less at 15% oxygen; or 2) Reduce carbon monoxide emissions by 70% or more	1) If using catalyst to reduce carbon monoxide emissions, maintain catalyst so the pressure drop across the catalyst does not change more than 2 inches of water at 100% load ± 10%; and 2) Maintain temperature of exhaust so the catalyst inlet temperature is between 450 and 1350°F	1) If displacement is less than 30 liters per cylinder, then fuel must have a maximum sulfur content of 15 parts per million; and 2) Minimum Centane index of 40 or a maximum aromatic content of 35 volume percent	1) Conduct initial compliance test according to 40 CFR Section 63.6612; and 2) Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first by methods specified in 40 CFR Part 63, Subpart ZZZZ, Table 4	1) Operate engine to manufacturer's specifications or develop own maintenance plan; 2) Minimize engine's idle time during startup; and 3) Limit startup time to 30 minutes	1) Conduct initial performance test to demonstrate compliance with carbon monoxide emission limits; and 2) Submit notification of compliance status with results of initial compliance demonstration	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	1) Initial notification; 2) Notification of compliance; and 3) Notification of performance test by dates specified in 40 CFR Sections 63.7, 63.8, and 63.9	1) Initial notification; 2) Compliance notification; 3) Malfunction records; 4) Performance tests; 5) Maintenance records; and 6) Hours of operation from the non-resettable hour meter	1) Submit compliance report according to 40 CFR Section 63.6650	03-May-13
Existing Non-Emergency Compression Ignition ≤ 300 Brake Horsepower	Area	Before 6/12/2006	1) Change oil and filter and inspect air cleaner annually or every 1,000 hours; and 2) Inspect all hoses and belts annually or every 500 hours operation	No Requirements	No Requirements	No Requirements	1) Operate engine to manufacturer's specifications or develop own maintenance plan; 2) Minimize engine's idle time during startup; and 3) Limit startup time to 30 minutes	No Requirements	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	No Requirements	1) Maintenance records	No Requirements	03-May-13
New and Reconstructed Non-Emergency Compression Ignition ≤ 500 Brake Horsepower	Area	On or After 6/12/06	Engines are subject to 40 CFR part 60, subpart IIII (CI NSPS)										
Existing Non-Emergency Compression Ignition 300+ Brake Horsepower ≤ 500	Major	Before 6/12/2006	1) Limit carbon monoxide concentration in exhaust to 49 parts per million by volume dry or less at 15% oxygen; or 2) Reduce carbon monoxide emissions by 70% or more	1) If using catalyst to reduce carbon monoxide emissions, maintain catalyst so the pressure drop across the catalyst does not change more than 2 inches of water at 100% load ± 10%; and 2) Maintain temperature of exhaust so the catalyst inlet temperature is between 450 and 1350°F	1) If displacement is less than 30 liters per cylinder, then fuel must have a maximum sulfur content of 15 parts per million; and 2) Minimum Centane index of 40 or a maximum aromatic content of 35 volume percent	1) Conduct initial compliance test according to 40 CFR Section 63.6612; and 2) Use test procedures according to the methods specified in 40 CFR Part 63, Subpart ZZZZ, Table 4	1) Minimize engine's idle time during startup; and 2) Limit startup time to 30 minutes	1) Conduct initial performance test to demonstrate compliance with carbon monoxide emission limits; and 2) Submit notification of compliance status with results of initial compliance demonstration	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	1) Initial notification; 2) Notification of compliance; and 3) Notification of performance test by dates specified in 40 CFR Sections 63.7, 63.8, and 63.9	1) Initial notification; 2) Compliance notification; 3) Malfunction records; 4) Performance tests; 5) Maintenance records; and 6) Hours of operation from the non-resettable hour meter	1) Submit compliance report according to 40 CFR Section 63.6650	03-May-13
Existing Non-Emergency Compression Ignition 100+HP ≤ 300	Major	Before 6/12/2006	1) Limit carbon monoxide concentration in exhaust to 230 parts per million by volume dry or less at 15% oxygen	1) If using catalyst to reduce carbon monoxide emissions, maintain catalyst so the pressure drop across the catalyst does not change more than 2 inches of water at 100% load ± 10%; and 2) Maintain temperature of exhaust so the catalyst inlet temperature is between 450 and 1350°F	No Requirements	1) Conduct initial compliance test according to 40 CFR Section 63.6612; and 2) Use test procedures according to the methods specified in 40 CFR Part 63, Subpart ZZZZ, Table 4	1) Minimize engine's idle time during startup; and 2) Limit startup time to 30 minutes	1) Conduct initial performance test to demonstrate compliance with carbon monoxide emission limits; and 2) Submit notification of compliance status with results of initial compliance demonstration	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	1) Initial notification; 2) Notification of compliance; and 3) Notification of performance test by dates specified in 40 CFR Sections 63.7, 63.8, and 63.9	1) Initial notification; 2) Compliance notification; 3) Malfunction records; 4) Performance tests; 5) Maintenance records; and 6) Hours of operation from the non-resettable hour meter	1) Submit compliance report according to 40 CFR Section 63.6650	03-May-13
Existing Non-Emergency Compression Ignition < 100 Brake Horsepower	Major	Before 6/12/2006	1) Change oil and filter and inspect air cleaner annually or every 1,000 hours; and 2) Inspect all hoses and belts annually or every 500 hours operation	No Requirements	No Requirements	No Requirements	1) Operate engine to manufacturer's specifications or develop own maintenance plan; 2) Minimize engine's idle time during startup; and 4) Limit startup time to 30 minutes	No Requirements	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; and 2) Maintenance situations limited to 100 hours per year	No Requirements	1) Initial notification of compliance; and 2) Maintenance records	No Requirements	03-May-13
New and Reconstructed Non-Emergency Compression Ignition ≤ 500 Brake Horsepower	Major	On or After 6/12/06	Engines are subject to 40 CFR part 60, subpart IIII (CI NSPS)										
Non-Emergency > 500 Horsepower													
Existing Non-Emergency Compression Ignition > 500 Brake Horsepower	Area	Before 6/12/2006	1) Limit carbon monoxide concentration in exhaust to 23 parts per million by volume dry or less at 15% oxygen; or 2) Reduce carbon monoxide emissions by 70% or more	1) If using catalyst to reduce carbon monoxide emissions, maintain catalyst so the pressure drop across the catalyst does not change more than 2 inches of water at 100% load ± 10%; and 2) Maintain temperature of exhaust so the catalyst inlet temperature is between 450 and 1350°F	1) If displacement is less than 30 liters per cylinder, then fuel must have a maximum sulfur content of 15 parts per million; and 2) Minimum Centane index of 40 or a maximum aromatic content of 35 volume percent	1) Conduct initial compliance test according to 40 CFR Section 63.6612; and 2) Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first by methods specified in 40 CFR Part 63, Subpart ZZZZ, Table 4	1) Operate engine to manufacturer's specifications or develop own maintenance plan; 2) Minimize engine's idle time during startup; and 3) Limit startup time to 30 minutes	1) Conduct initial performance test to demonstrate compliance with carbon monoxide emission limits; and 2) Submit notification of compliance status with results of initial compliance demonstration	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	1) Initial notification; 2) Notification of compliance; and 3) Notification of performance test by dates specified in 40 CFR Sections 63.7, 63.8, and 63.9	1) Initial notification; 2) Compliance notification; 3) Malfunction records; 4) Performance tests; 5) Maintenance records; and 6) Hours of operation from the non-resettable hour meter	1) Submit compliance report according to 40 CFR Section 63.6650	03-May-13
New Non-Emergency Compression Ignition > 500 Brake Horsepower	Area	On or After 6/12/06	Engines are subject to 40 CFR part 60, subpart IIII (Compression Ignition - NSPS)										
Existing Non-Emergency Compression Ignition > 500 Brake Horsepower	Major	Before 12/19/2002	1) Limit carbon monoxide concentration in exhaust to 23 parts per million by volume dry or less at 15% oxygen; or 2) Reduce carbon monoxide emissions by 70% or more	1) If using catalyst to reduce carbon monoxide emissions, maintain catalyst so the pressure drop across the catalyst does not change more than 2 inches of water at 100% load ± 10%; and 2) Maintain temperature of exhaust so the catalyst inlet temperature is between 450 and 1350°F	1) If displacement is less than 30 liters per cylinder, then fuel must have a maximum sulfur content of 15 parts per million; and 2) Minimum Centane index of 40 or a maximum aromatic content of 35 volume percent	1) Conduct initial compliance demonstration specified in 40 CFR Section 63.6610; 2) Conduct subsequent performance tests semiannually; and 3) Use test methods specified in 40 CFR Part 63, Subpart ZZZZ, Table 4	1) If continuous emission monitoring system is needed, install and operate the unit according to 40 CFR Section 63.6625(a) and (b); 2) Minimize engine's idle time during startup; 3) Limit startup time to 30 minutes; and 4) If unit is > 300 brake horsepower, you must comply with 40 CFR Section 63.6625(g)	1) Conduct initial performance test to demonstrate compliance with carbon monoxide emission limits; and 2) Submit notification of compliance status with results of initial compliance demonstration	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	1) Initial notification; 2) Notification of compliance; and 3) Notification of performance test by dates specified in 40 CFR Sections 63.7, 63.8, and 63.9	1) Initial notification; 2) Compliance notification; 3) Malfunction records; 4) Performance tests; 5) Maintenance records; and 6) Hours of operation from the non-resettable hour meter	1) Submit compliance report according to 40 CFR Section 63.6650	03-May-13
New and Reconstructed Non-Emergency Compression Ignition > 500 Brake Horsepower	Major	On or After 12/19/02	1) Reduce carbon monoxide emissions by 70% or more; or 2) Limit concentration of formaldehyde in exhaust to 580 parts per billion by volume dry or less at 15% oxygen	1) If using catalyst to reduce carbon monoxide emissions, maintain catalyst so the pressure drop across the catalyst does not change more than 2 inches of water at 100% load ± 10%; and 2) Maintain temperature of exhaust so the catalyst inlet temperature is between 450 and 1350°F	1) If displacement is less than 30 liters per cylinder, then fuel must have a maximum sulfur content of 15 parts per million; and 2) Minimum Centane index of 40 or a maximum aromatic content of 35 volume percent	1) Conduct initial compliance demonstration specified in 40 CFR Section 63.6610; 2) Conduct subsequent performance tests semiannually; and 3) Use test methods specified in 40 CFR Part 63, Subpart ZZZZ, Table 4	1) If continuous emission monitoring system is needed, install and operate the unit according to 40 CFR Section 63.6625(a) and (b); 2) Minimize engine's idle time during startup; and 3) Limit startup time to 30 minutes	1) Conduct initial performance test to demonstrate compliance with carbon monoxide or formaldehyde emission limits; and 2) Submit notification of compliance status with results of initial compliance demonstration	1) Except for malfunctions and repairs, engine must be continuously monitored at all times that the engine is operating; 2) Must use valid data from non-malfunction or repair periods for reporting; and 3) Maintenance situations limited to 100 hours per year	1) Initial notification; 2) Notification of compliance; and 3) Notification of performance test by dates specified in 40 CFR Sections 63.7, 63.8, and 63.9	1) Initial notification; 2) Compliance notification; 3) Malfunction records; 4) Performance tests; 5) Maintenance records; and 6) Hours of operation from the non-resettable hour meter	1) Submit compliance report according to 40 CFR Section 63.6650	1) If startup occurs before August 16, 2004, the compliance date is August 16, 2004. 2) If startup occurs after August 16, 2004, the compliance date is the startup date of the RICE