

40 CFR part 63, subpart ZZZZ
National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Summary of Requirements

Engine Category	Date Constructed	Emission Limitations	Operating Limitations	Fuel Requirements	Performance Tests	Monitoring, Installation, Operation and Maintenance Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Recordkeeping Requirements	Reporting Requirements	General Provisions (40 CFR part 63)
Stationary RICE at Area Sources												
STEP 1a - Existing Area Sources												
Existing Stationary Engine ≤500 HP Located at Area Sources of HAP												
Emergency CI	Before 6/12/2006	63.6603 Table 2d	No Requirements	No Requirements	No Requirements	63.6625(e), (f), (h)	No Requirements	63.6635 63.6640	No Requirements	63.6655	63.6650 63.6650(g) (except	Yes
Non-Emergency CI 300-HP≤500	Before 6/12/2006	63.6603 Table 2d	No Requirements	>300 HP with displacement <30 l/cyl: 63.6604	63.6612 63.6615 63.6620 Table 4	63.6625(e), (h), (i) ≥300 HP: 63.6625(g)	63.6630	63.6635 63.6640	63.6645	63.6655 (except 63.6655(f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency CI ≤300 HP	Before 6/12/2006	63.6603 Table 2d	No Requirements	No Requirements	No Requirements	63.6625(e), (h), (i)	No Requirements	63.6635 63.6640	No Requirements	63.6655 (except 63.6655(f))	63.6650 63.6650(g) (except	Yes
SI 4SLB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
SI 2SLB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
SI 4SRB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
Landfill/Digester Gas	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
Residential/Commercial/Institutional Emergency	Before 6/12/2006	No Requirements										
Existing Stationary Engine >500 HP Located at Area Sources of HAP												
Emergency CI	Before 6/12/2006	63.6603 Table 2d	No Requirements	No Requirements	No Requirements	63.6625(e), (f), (h)	No Requirements	63.6635 63.6640	No Requirements	63.6655	63.6650 (except 63.6650(g))	Yes
Non-Emergency CI	Before 6/12/2006	63.6603 Table 2d	63.6603 Table 2b	>300 HP with displacement <30 l/cyl: 63.6604	63.6610 63.6615 63.6620 Table 4	63.6625(g), (h)	63.6630	63.6635 63.6640	63.6645	63.6655 (except 63.6655(f))	63.6650 (except 63.6650(g))	Yes
SI 4SLB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
SI 2SLB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
SI 4SRB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
Landfill/Digester Gas	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)										
Residential/Commercial/Institutional Emergency	Before 6/12/2006	No Requirements										

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Stationary RICE at Area Sources												
STEP 1b - New & Reconstructed Area Sources												
New & Reconstructed Stationary Engine ≤500 HP Located at Area Sources of HAP												
Limited Use	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart IIII (CINSPS) or subpart JJJJ (SINSPS), as applicable.
Emergency	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart IIII (CINSPS) or subpart JJJJ (SINSPS), as applicable.
Non-Emergency CI	On or After 6/12/06											Engines are subject to 40 CFR part 60, subpart IIII (CINSPS)
SI 4SLB	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
SI 2SLB	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
SI 4SRB	On or After 6/12/06											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
Landfill/Digester Gas	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
New & Reconstructed Stationary Engine >500 HP Located at Area Sources of HAP												
Limited Use	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart IIII (CINSPS) or subpart JJJJ (SINSPS), as applicable.
Emergency	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart IIII (CINSPS) or subpart JJJJ (SINSPS), as applicable.
Non-Emergency CI	On or After 6/12/06											Engines are subject to 40 CFR part 60, subpart IIII (CINSPS)
SI 4SLB	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
SI 2SLB	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
SI 4SRB	On or After 6/12/06											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)
Landfill/Digester Gas	On or After 6/12/2006											Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)

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Stationary RICE at Major Sources													
STEP 2(a)(i)													
Existing Stationary Engine ≤500 HP Located at Major Sources of HAP													
Emergency CI	Before 6/12/2006	63.6602 Table 2c	63.6602 Table 2c	No Requirements	No Requirements	63.6625(e), (f), (h)	No Requirements	63.6635 63.6640	No Requirements	63.6655	63.6650 (except 63.6650(g))	Yes	
Non-Emergency CI 100≤HP≤500	Before 6/12/2006	63.6602 Table 2c	63.6602 Table 2c	>300 HP with displacement <30 l/cyl: 63.6604	63.6612 63.6620	63.6615 Table 4	63.6625(b), (i) ≥300 HP: 63.6625(g)	63.6630	63.6635 63.6640	63.6645	63.6655 (except 63.6655(f)) 63.6650 (except 63.6650(g))	Yes	
CI <100 HP	Before 6/12/2006	63.6602 Table 2c	63.6602 Table 2c	No Requirements	No Requirements	63.6625(b), (i)	No Requirements	63.6635 63.6640	No Requirements	63.6655 (except 63.6655(f))	63.6650 (except 63.6650(g))	Yes	
SI 4SLB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)											
SI 2SLB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)											
SI 4SRB	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)											
Landfill/Digester Gas	Before 6/12/2006	No Requirements (Rule to be finalized Aug 2010)											
STEP 2(a)(ii)													
Existing Stationary Engine >500 HP Located at Major Sources of HAP													
Limited Use	Before 12/19/2002	No Requirements											
Emergency CI	Before 12/19/2002	No Requirements											
Non-Emergency CI	Before 12/19/2002	63.6600(d) Table 2c	63.6600(d) Table 2b	>300 HP and <30 l/cyl: 63.6604	63.6610 63.6620	63.6615 Table 3	63.6625(a), (b), (h), (i) ≥300 HP: 63.6625(g)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
SI 4SLB	Before 12/19/2002	No Requirements											
SI 2SLB	Before 12/19/2002	No Requirements											
SI 4SRB	Before 12/19/2002	63.6600(a) Table 1a	63.6600(a) Table 1b	No Requirements	63.6610 63.6620	63.6615 Table 3	63.6625(a), (b), (h)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
Landfill/Digester Gas	Before 12/19/2002	No Requirements											

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Stationary RICE at Major Sources												
STEP 2(b)(i)												
New & Reconstructed Stationary Engine ≤500 HP Located at Major Sources of HAP												
Limited Use	On or After 6/12/2006	Engines are subject to 40 CFR part 60, subpart III (CINSPS) or subpart JJJJ (SINSPS), as applicable.										
Emergency	On or After 6/12/2006	Engines are subject to 40 CFR part 60, subpart III (CINSPS) or subpart JJJJ (SINSPS), as applicable.										
Non-Emergency CI	On or After 6/12/06	Engines are subject to 40 CFR part 60, subpart III (CINSPS)										
SI 4SLB <250 HP	On or After 6/12/2006	Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)										
Non-Emergency SI 4SLB ≥250 HP	On or After 6/12/2006 and before 1/1/2008	No Requirements										
Non-Emergency SI 4SLB ≥250 HP	Manufactured on or after 1/1/2008	63.6601 Table 2a	63.6601 Table 2b	No Requirements	63.6611 63.6615 63.6620 Table 4	63.6625(h), (i)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
Emergency SI 4SLB ≥250 HP	Manufactured on or after 1/1/2008	No Requirements	No Requirements	No Requirements	No Requirements	63.6625(d)	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	Yes
SI 2SLB	On or After 6/12/2006	Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)										
SI 4SRB	On or After 6/12/06	Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)										
Landfill/Digester Gas	On or After 6/12/2006	Engines are subject to 40 CFR part 60, subpart JJJJ (SINSPS)										
STEP 2(b)(ii)												
New & Reconstructed Stationary Engine >500 HP Located at Major Sources of HAP												
Limited Use	On or After 12/19/02	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	63.6645(f)	No Requirements	No Requirements	No (except as specified in 63.6645(f))
Emergency	On or After 12/19/2002	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	No Requirements	63.6645(f)	No Requirements	No Requirements	No (except as specified in 63.6645(f))
CI	On or After 12/19/02	63.6600(b) Table 2a	63.6600(b) Table 2b	No Requirements	63.6610 63.6615 63.6620 Table 3 Table 4	63.6625(a), (b), (h)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
SI 4SLB	On or After 12/19/02	63.6600(b) Table 2a	63.6600(b) Table 2b	No Requirements	63.6610 63.6615 63.6620 Table 3 Table 4	63.6625(a), (b), (h)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
SI 2SLB	On or After 12/19/02	63.6600(b) Table 2a	63.6600(b) Table 2b	No Requirements	63.6610 63.6615 63.6620 Table 3 Table 4	63.6625(a), (b), (h)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
SI 4SRB	On or After 12/19/02	63.6600(a) Table 1a	63.6600(a) Table 1b	No Requirements	63.6610 63.6615 63.6620 Table 3 Table 4	63.6625(a), (b), (h)	63.6630	63.6635 63.6640	63.6645	63.6655	63.6650	Yes
Landfill/Digester Gas	On or After 12/19/02	No Requirements	No Requirements	No Requirements	No Requirements	≥10 percent of the gross heat input on an annual basis: 63.6625(c), (h)			≥10 percent of the gross heat input on an annual basis: 63.6645(f)	≥10 percent of the gross heat input on an annual basis: 63.6655(c)	≥10 percent of the gross heat input on an annual basis: 63.6650(g)	No (except as specified in 63.6645(f))

*Note that certain engines covered under 40 CFR part 63, subpart ZZZZ, may be subject to additional requirements under 40 CFR part 60, subparts III and JJJJ.

**For assistance in determining the potential to emit, please refer to <http://www.epa.gov/tm/chief/ap42/index.html> or contact your EPA regional office or state permitting staff. To determine the potential to emit, you may use emission factors from <http://www.epa.gov/tm/chief/ap42/c303/index.html>, test data, or other published information.

Abbreviations:
CI-Compression Ignition
SI-Spark Ignition
4SLB-4 Stroke Lean Burn
2SLB-2 Stroke Lean Burn
4SRB-4 Stroke Rich Burn