

Section 9 – Engine Rules and Area Source MACT Update

MACT – Subpart ZZZZ (4Z)

Reciprocating Internal Combustion Engines
(R.I.C.E.)

MCIC Workshop

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MACT 4Z - Revisions

Revised RICE Rule Promulgated - August 20, 2010

- Existing SI \leq 500 HP at Major Source
- All Existing SI at Area Source

Section 9 – Engine Rules and Area Source MACT Update

Compliance Date

October 19, 2013 (Spark Ignition)

- Existing SI \leq 500 HP at Major Source
- Existing SI at Area Source

May 3, 2013 (Compression Ignition)

- Existing Non-emergency CI $>$ 500 HP at Major Source
- Existing CI \leq 500 HP at Major Source
- Existing CI at Area Source

All other Engines should be in compliance or upon start-up

Existing vs. New

Existing RICE

- $>$ 500 bhp at MAJOR source constructed before Dec. 19, 2002
- \leq 500 bhp at MAJOR source constructed before June 12, 2006
- Any RICE at AREA source constructed before June 12, 2006

New/Reconstructed RICE

- $>$ 500 bhp at MAJOR source constructed on/after Dec. 19, 2002
- \leq 500 bhp at MAJOR source constructed on/after June 12, 2006
- Any RICE at AREA source constructed on/after June 12, 2006

NOTE: Change in ownership does not change engine classification

Reference: 40 CFR 63.6590 (a)(1) and (2)

Section 9 – Engine Rules and Area Source MACT Update

MACT 4Z and NSPS

Comply with MACT4Z by Complying with NSPS IIII/JJJJ

Area Source : All New Engines

Major Source

- New SI 2SLB \leq 500 bhp
- New SI 4SLB $<$ 250 bhp
- New SI 4SRB \leq 500 bhp
- New CI \leq 500 bhp
- New Combusts landfill gas & \leq 500 bhp
- New Emergency/ limited use \leq 500 bhp

Reference: 40 CFR 63.6590 (c)

NSPS Applicability

NSPS IIII – Compression Ignition:

- 1) Commenced Construction after July 11, 2005 and
 - Manufactured after April 1, 2006 and not a fire pump; or
 - Manufactured after July 1, 2006 and a fire pump;
- 2) Modified/reconstructed after July 11, 2005

NSPS JJJJ – Spark Ignition:

- 1) Commence Construction after June 12, 2006 and
 - Manuf. on /after July 1, 2007 for ICE \geq 500 HP
(except LB ICE $500 \leq$ HP $<$ 1350); or
 - Manuf. on/after Jan.1, 2008 for LB ICE $500 \leq$ HP $<$ 1350; or
 - Manuf. on /after July 1, 2008 for ICE $<$ 500 HP; or
 - Manuf. on / after Jan. 1, 2009 Emerg. ICE $>$ 25 HP
- 2) Modified/reconstructed after June 12, 2006

Section 9 – Engine Rules and Area Source MACT Update

Stationary RICE

MACT 4Z:

...a stationary RICE differs from a mobile RICE in that a stationary RICE is NOT a non-road engine as defined at 40 CFR 1068.30,

AND

is not used to propel a motor vehicle or a vehicle used solely for competition.

Non-Road Engine

40 CFR 1068.30

An internal combustion engine is NOT a non-road engine (i.e., stationary per 4Z) if it meets any of the following:

- (i) – is used to propel a motor vehicle, aircraft, or equipment solely for competition.
- (ii) – is regulated under 40 CFR 60
- (iii) – engines that are otherwise portable but remain at a location for more than 12 consecutive months.

Section 9 – Engine Rules and Area Source MACT Update

Emergency Engines

- Unlimited Operation in Emergency Situations
- Maintenance and Readiness Checks limited to 100 hours per year
- 50 Hours per year non-emergency situations but counts toward 100 hours above
Cannot peak shave or to generate income for facility to supply power to the grid or supply power as part of a financial arrangement with another entity, except may operate 15 hours per year as part of a demand response program.
- 15 hours per year for Demand Response
December 7, 2010 EPA Requested Public Comment Demand Response Limit
- Residential, Commercial, Institutional
Existing at Area Source – No Requirements under MACT 4Z

Reference: 40 CFR 63.6640(f)

S.I.C. Codes

Guidance on Classification of :

Residential, Commercial, and Institutional

http://www.epa.gov/ttn/atw/rice/guidance_emergency_engine_def.pdf

Section 9 – Engine Rules and Area Source MACT Update

NC DAQ Interim Policy

While NC DAQ investigates the De-Delegation of Subpart 4Z, DAQ will :

- Insert “Place Holder” Language in the Air Permit for Area Sources
- NC DAQ has been and will continue to ensure NSPS IIII and JJJJ are incorporated into Air Permit and facility compliance.
- During site visits, NC DAQ Inspectors will identify RICE sources
- NC DAQ will stay up-to-date on EPA activities on Subpart 4Z.

Helpful Websites

EPA Subpart ZZZZ Regulation

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:13.0.1.1.1.1&idno=40>

EPA RICE Summary Table of Requirements

http://www.epa.gov/ttn/atw/rice/requirements_2-22-11.xls

Section 9 – Engine Rules and Area Source MACT Update

Questions

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