NRECA RICE Q&A

Q. What is a compression ignition (CI) engine?

A. EPA defines the CI engines as diesel generators. The initial rule directed at "area source" (see definition below) CI became effective on May 2010 with a compliance deadline beginning on May 3, 2013. Any size engine is subject to the RICE requirements. The only exemption applies to residential, commercial or institutional emergency engines located at area sources (see definition below).

Q. What is a spark ignition (SI) engine?

A. EPA defines the SI engines as gasoline or natural gas fired generators. Initial rule directed at area source SI became effective on October 2010 and the final compliance deadline beginning on October 19, 2013. Any size engine is subject to the RICE requirements. The only exemption applies to residential, commercial or institutional emergency engines at area sources.

Q. When do I need to comply with these requirements?

A. With the few exceptions mentioned in the next paragraph, the compliance dates for installation of controls is as follows: for compression ignition engines, May 3, 2013 and for spark ignition engines, October 19, 2013.

In the final rule addressing reconsideration petitions issued on January 30, 2013, EPA will allow the following adjustments to specific compliance deadlines. First, any emergency CI RICE units greater than 100 brake and a displacement of less than 30 liters per cylinder that operate or are contractually obligated to be available for more than 15 hours per year (up to a maximum of 100 hours per year) for emergency demand response, or that operate for local system reliability will need to adopt the use of ultra-low sulfur diesel fuels effective January 1, 2015. Second, emergency units located at area sources that meet certain conditions will be allowed to peak shave for up to 50 hours annually, but only until May 3, 2014.

Q. What is the difference between an "area source" and a "major source"?

A. An area source is typically a smaller unit (or facility) and is defined as emitting less than 10 tons per year of hazardous air pollutants as defined in Section 112 of the Clean Air Act (many cooperative customer-owned RICE units are likely area sources unless the RICE is located at a industrial facility in which case the owner of the facility will know it is a major sources.).

A major source is defined as emitting more than 10 tons per year of a single hazardous air pollutant, or 25 tons per year aggregate of multiple hazardous air pollutants (industrial facilities, G&Ts etc may be in the major source category).

Q. Does EPA have a minimum size unit where the RICE rules do not apply? Does this apply to any other power sources such as propane or natural gas fired units or just basically diesel?

A. EPA requirements cover all CI and SI generators at either area or major sources. Residential, commercial or institutional emergency engines that have financial arrangements with utilities for either demand response or load management activities do not receive the exemption from the requirements.

Q. Are generators used for peak shaving purposes considered emergency or non-emergency?

A. Prior to May 3, 2014, an emergency unit at an area source is allowed to peak shave up to 50 hours annually. After May 3, 2014, these units would be considered non-emergency if they continue to peak shave and would need to meet the rule's emission, recordkeeping and reporting requirements appropriate for the unit's type and size. If you are meeting those non-emergency requirements, no hourly/annual limits apply to using the units for any purpose, including peak shaving.

For major sources, you cannot be deemed an emergency unit for purposes of peak shaving. Major source RICE units would need to meet the rule's emission, recordkeeping and reporting requirements appropriate to their size and type. If you are meeting those non-emergency requirements, no hourly/annual limits apply to using these units to peak shave or for other purposes.

Q. For non-emergency generator operation, what are the limits for usage (in total hours) on an annual basis? Is it different depending on generator fuel source and/or size of generator?

A. There are no limits on non-emergency use regardless of engine type or size. As long as the RICE meets the non-emergency requirements while engaged in peak shaving, or other activities, there is no limit as to the frequency, duration and total number of hours that a non-emergency RICE unit operates. Note that if you have any type of permit restrictions at the state level, the EPA requirements would not override these restrictions.

Q. What are the emission limits for compression or spark ignition units at area sources (sources with less than 10 tons per year of hazardous air pollutants)?

A. Many smaller units will only need to comply with work practice standards such as changing oil filters and inspecting cleaning and replacing belts and air filters as necessary. For larger non-emergency engines, EPA has established emission limits that will require various control technologies to comply. Recordkeeping and reporting is required for all units and performance tests are required for units with emission limits. Details of the controls for specific size engines are as follows:

1. Non-Emergency, non-black start CI stationary RICE <300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300<HP<500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O2; or b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O2; or b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE2	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; nonemergency, nonblackstart 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year2	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP; nonemergency, nonblack start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP; nonemergency, nonblack start 4SRB remote stationary RICE 500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of	

[1] Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

	operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE	
11. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

Q. Are diesel and gas irrigation systems covered by this rule?

A. Yes. Both compression and spark ignition units would be covered by this rule. EPA's exemptions (residential, commercial and institutional) do not cover the NAICS for irrigation systems.

Q. If a Tier 3 unit is being used for peak shaving would that unit have to meet the reduced hours as well?

A. No. If the Tier 3 unit meets the certification requirements and was installed by June 12, 2006, that unit meets the emission requirements without additional controls, would not be considered an emergency engine and could be run as needed. Note that Tier 3 engines would need to meet the rules reporting requirements.

Q. What's the difference between Demand Response and Load Management/Peak Shaving?

A. EPA views demand response as having a primary component of meeting reliability and grid stability determined by the regional transmission authority, equivalent balancing authority, or transmission operator. EPA has expanded this concept to address reliability concerns at the local level – primarily in response to NRECA concerns.

EPA adopted the views of some states and environmental groups that load management/peak shaving is not an emergency use as it primarily provides economic benefit and thereby encourages more utilization of the generators and increase capacity in the system. For these reasons, EPA decided to further restrict peak shaving to select units for 50 hours and only until May 3, 2014. To peak shave after May 3 2014, you will need to install the appropriate emission controls.

Q. Is my interpretation correct that emergency RICE at major sources cannot use 50 hours/year for peak shaving until May 3, 2014, but only emergency RICE at area sources can use the 50 hours for peak shaving?

A. Under EPA's proposed amendments, only emergency RICE at <u>area sources</u> can peak shave and these units are allow up to 50 hours annually until May 3, 2014. After May 3, 2014, no emergency RICE are allowed to peak shave. Any non-emergency

RICE unit at area or major sources that have met the emission control and compliance requirements are allowed to peak shave.

Q. For emergency RICE how are hours of use reported to the EPA?

A. Records need to be maintained and made available to EPA or the state permitting authority upon request. If the RICE unit is greater than 100 hp you will need to keep extensive records on the engine hours of operation including the circumstances of operation. For the year 2015 and thereafter, you will need to submit an annual report electronically to EPA though its central data exchange . [See Federal Register at 6696 through 6698]

Q. Do you need to identify, at a minimum by the 2013 compliance date what unit classification you are claiming?

A. Yes. EPA's initial applicability notifications for engines subject to the 2010 amendments were due by August 31, 2010 for existing CI RICE engines (or the date of construction reconstruction). Actual startup of the unit requires notification within 15 days of the startup. Notifications of performance tests are due 60 days prior to the test and initial notification of compliance is due 60 days after compliance has been demonstrated.

Q. Is a facility allowed to change engine status from non-emergency to emergency prior to May 2013?

A. We discussed that initial notification deadlines have already passed. That said, if a unit meets the definition of emergency unit, you could notify the agency of this status up until the compliance deadline of May 3, 2013.

Q. Can a RICE unit be reclassified to emergency status if it exceeds the 100 hour emergency RICE limit?

A. EPA included specific language that emergency units which exceeded the 100 hour limit would be required to permanently reclassify as non-emergency units and follow all the requirements for nonemergency units that depend on type and size. For larger units this means the installation of controls.

Q. How is EPA planning to police this rule? If individual members have not reported their generator, how will EPA know they exist?

A. NRECA recommends you carefully review the regulation and as required for your circumstances, be in compliance by the appropriate deadline. Private Citizens including environmental organizations can bring legal actions against entities violating the Clean Air Act. In addition, EPA has a significant and robust enforcement component both at the Headquarters and Regional level. EPA also closely coordinates with state/local agencies on compliance/enforcement. Federal fines for non-compliance begin at $37,500 per violation per day. Knowingly violating the standard could also lead to prison terms for corporate officials. Certainly in circumstances where there is a contractual relationship between the consumer and the cooperative where consumer-owner RICE is involved, EPA would

be likely to view the cooperative as the operator of the RICE unit thereby likely sharing in compliance responsibilities and a target for any noncompliance issues.

Q. If a cooperative enters into a contractual arrangement with a customer for non-emergency peak-shaving purposes, is it the <u>customer</u> or the <u>cooperative</u> that is the responsible entity to the EPA on these rules?

A. This rule like many EPA rules references "owner or operator" with regard to responsibilities. Likely EPA would consider the cooperative as the operator. For noncompliance EPA may likely go after both the owner and operator. The cooperative should spell out all compliance responsibilities in the contract with the owner. Of course compliance requirements vary considerably depending on engine size, type and location (whether located in an area source or major source). The vast majority of units we're talking about are located as area sources.

Q. Does the exemption for "remote areas" only apply in Alaska? Can you explain the language that provided an exemption for generators that were close to 5 or less buildings designed for occupancy?

A. EPA drafted a specific provision to account for the unique and remote characteristics of CI RICE in Alaska. Separately, EPA developed a provision to address "sparsely populated" SI RICE units – typically those along gas/oil pipelines and well away from any population. RICE units that meet these criteria are allowed to meet work practice standards to comply with the regulation.

<u>"Remote areas of Alaska"</u> –1) any existing non-emergency CI engines at area sources located in areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS) are defined as remote and 2) and existing non-emergency CI engines at area sources accessible by the FAHS and that meet the following criteria: a) located in an area not connected to the Alaska Railbelt Grid, b) at least 10% of the power generated is used for residential purposes and c) the generating capacity of the area source is less than 12 MW or the engine is used exclusively for backup power for renewable energy.

<u>"Sparsely populated areas" include:</u> Stationary SI RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

There are many elements of these RICE regulations that are ambiguous and thus subject to various interpretations. If you have any doubts regarding your obligations and responsibilities in complying with these regulations when finalized you should not hesitate to contact your regulatory authority which is either your state air regulator or the EPA regional office having jurisdiction where your RICE is located.