

AIR POLLUTION CONTROL DISTRICT  
COUNTY OF SAN DIEGO

**DRAFT PROPOSED AMENDMENTS TO RULE 69.4.1 – STATIONARY  
RECIPROCATING INTERNAL COMBUSTION ENGINES-BEST AVAILABLE  
RETROFIT CONTROL TECHNOLOGY, AND THE PROPOSED REPEAL OF  
EXISTING RULE 69.4 – STATIONARY RECIPROCATING INTERNAL  
COMBUSTION ENGINES-REASONABLY AVAILABLE CONTROL TECHNOLOGY**

**WORKSHOP REPORT**

The San Diego County Air Pollution Control District (District) held a public workshop on August 16, 2019, to discuss and receive input on the draft proposed amendments to Rule 69.4.1 – Stationary Reciprocating Internal Combustion Engines-Best Available Retrofit Control Technology, and the proposed repeal of existing Rule 69.4 – Stationary Reciprocating Internal Combustion Engines-Reasonable Available Control Technology. A meeting notice was mailed to each permit holder, applicant, registration holder, and chamber of commerce in the region, as well as the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB). Additionally, a meeting notice was posted on the District’s website and distributed to interested parties including through the County of San Diego’s electronic mail service.

The workshop was attended by 23 people. A summary of the comments and District responses are provided below:

**1. WORKSHOP COMMENT**

Existing Rule 69.4.1, Subsection (b)(2), provides an exemption from certain rule requirements for existing engines that commenced operation on or before November 15, 2000, and operate less than 200 hours per calendar year. Does this exemption still apply under the proposed amended rule?

**DISTRICT RESPONSE**

Yes, the existing exemption for qualifying engines still applies under the proposed amended rule. Proposed new Subsection (b)(3) has been added to clarify this point.

**2. WORKSHOP COMMENT**

The definition of “Emergency Situation” in Subsections (c)(15)(i) and (ii), and the record keeping requirements in Subsections (g)(2)(i)(A) and (B), require a demonstration by the owner or operator that the failure or loss of all or part of normal external or internal power service was “beyond the reasonable control” of the owner or operator. However, the term “beyond the reasonable control” is not defined in the rule and is ambiguous. For clarity, Subsections (c)(15)(i)(B) and (ii)(B) should

be revised to the following: “which is demonstrated by the owner or operator *not to have been the intended result of the owner or operator’s actions or omissions.*”

In addition, Subsections (g)(2)(i)(A) and (B) should be revised by deleting the phrase “that was beyond the reasonable control of the owner or operator.”

### **DISTRICT RESPONSE**

The definition of “Emergency Situation” in proposed Subsection (c)(15) is consistent with the definition of “Emergency Use” in the State Air Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines. However, the term “beyond the reasonable control of the owner or operator” is not defined in the State ATCM. To provide clarification, the District issued a July 13, 2018, Compliance Advisory titled “Records to Demonstrate Emergency Use for Diesel Engines” to owners and operators of emergency diesel engines. The advisory provides guidance regarding the required records to demonstrate “emergency use.” Additionally, it defines “beyond the reasonable control of the owner or operator” as meeting all of the following conditions: not the result of neglect or disregard of any air pollution control law or rule or regulation; not intentional or the result of negligence; not the result of improper maintenance; and not a recurrent failure or malfunction of the same equipment. Also, per the advisory, “negligence” means failure to use the care that a prudent person usually exercises; and “improper maintenance” means not performing normal, regular maintenance required by the engine manufacturer or service provider.

### **3. WORKSHOP COMMENT**

Emissions data provided by engine manufacturers can be listed in one of two forms, either as an emissions rate in grams per brake horsepower-hour (g/bhp-hr) or as an emissions concentration in parts per million by volume (ppmv). For clarity, the District should list the emissions limits specified in proposed Subsection (d)(1) in both forms.

### **DISTRICT RESPONSE**

The emission standards for new diesel fueled engines (specified in proposed Subsections (d)(1)(ii)(D) and (E)), including the form of the standards, mirror the standards as listed in the State ATCM for Stationary Compression Ignition Engines and the federal New Source Performance Standards (NSPS) Subpart IIII – Stationary Compression Ignition Internal Combustion Engines. For consistency with these State and federal regulations, the proposed amended Rule 69.4.1 lists the emissions standards for new diesel fueled engines in g/bhp-hr only.

However, the emissions standards in NSPS Subpart JJJJ – Stationary Spark Ignition Internal Combustion Engines, are listed in both forms (g/bhp-hr and ppmv). For consistency with this federal regulation, Subsection (d)(1)(ii)(E) of the proposed amended rule has been revised to

include emissions standards in both forms (g/bhp-hr and ppmv) for lean-burn and black-start gaseous fueled emergency standby engines.

**4. WORKSHOP COMMENT**

Proposed Subsection (f)(2)(i) requires annual oil and filter changes. Is this required regardless of the condition of the oil?

**DISTRICT RESPONSE**

The proposed requirement for conducting annual maintenance of the engine, including oil and filter changes, is consistent with requirements of the federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines. As an alternative, the NESHAP allows for an oil analysis to be conducted in order to extend the specified oil change frequency. The analysis must include the testing of three parameters of the oil: total base or acid number, viscosity, and percent water content. If any of these three parameters exceed their respective limits, then the oil must be changed. Proposed Subsection (f)(2)(i) has been revised to include this alternative for oil analysis.

**5. WORKSHOP COMMENT**

The requirement for oil and filter changes annually (specified in proposed Subsection (f)(2)(i)) is more frequent than recommended by the engine manufacturer, will not decrease engine emissions, and will increase waste generation. Subsection (f)(2)(i) should be revised to the following: “Changing the oil and filter *according to the frequency recommended by the manufacturer.*”

**DISTRICT RESPONSE**

See District Response to Workshop Comment No. 4 above.

**6. WORKSHOP COMMENT**

Many emergency standby engines are located at unstaffed sites or sites that are not staffed on a frequent basis. Because of this, it is not possible for an engine operator to generate an operating log based on actual readings of engine hour or fuel meter as proposed in Subsection (g)(2)(i). Some logs are generated electronically based on automatic alarms and are remotely monitored. Actual engine hour or fuel meter readings are used to verify the electronically generated logs when the sites are visited. To allow for these situations, Subsection (g)(2)(i) should be revised to the following: “an operating log containing dates and elapsed times of every instance of engine operation *either based on actual readings of engine hour or fuel meter or validated against such actual readings during site visits.*”

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (g)(2)(i) has been revised to allow, for unstaffed sites only, validation against actual readings of engine hour or fuel meter during owner or operator site visits.

**7. WORKSHOP COMMENT**

Proposed Subsection (g)(2)(i)(A) requires the owner or operator to maintain documentation from the serving utility of an external power outage in the area where the engine is located. However, there are instances when such documentation is not available from the serving utility. Electric utilities are required to provide to its customers data related to total outages, but they are not required to provide such data when a partial loss of normal electrical power service has occurred. The rule should be revised to include additional options to document total or partial external power outages. Subsection (g)(2)(i)(A) should be revised to the following: “*for an external power outage, documentation from the serving utility of an outage in the area where the engine is located, data from power sensors, or other reasonable means; and/or.*”

**DISTRICT RESPONSE**

Proposed Subsection (g)(2)(i)(A) has been revised to clarify that documentation from the serving utility shall be required in the event of a *total* external power outage.

**8. WORKSHOP COMMENT**

Proposed Subsection (g)(2)(i)(B) requires the owner or operator to maintain receipts and/or work orders for the necessary repairs for an internal power outage. However, not all internal power outages require repairs that would involve receipts or work orders. For example, vandals may gain access to a disconnect switch which may only require the switch to be turned back on, or a lightning strike may trip an overcurrent limiter requiring a simple reset and not a repair. To account for those situations in which a repair is not required, Subsection (g)(2)(i)(B) should be revised to the following: “*for an internal power outage, a description of what caused the failure and receipts and/or work orders for the necessary repairs, as applicable.*”

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (g)(2)(i)(B) has been revised as suggested.

**9. WORKSHOP COMMENT**

According to a Compliance Advisory issued by the District on July 13, 2018, titled “Records to Demonstrate Emergency Use for Diesel Engines,” in the event of a public utility low-voltage incident in which backup power is triggered at a facility, a permittee shall document a description

of the incident and the emergency engine run times. The District should add this requirement to the rule.

**DISTRICT RESPONSE**

The District agrees. Proposed new Subsection (g)(2)(i)(C) has been added to require that for *partial* external power outages, including low-voltage or electric transient incidents, the owner or operator shall document a description of the event. Proposed Subsection (g)(2)(i) already requires that a log be maintained of elapsed times of every instance of engine operation.

**10. CARB COMMENT**

CARB has no official comments at this time.

**11. EPA COMMENT**

Proposed Subsection (a)(3) specifies that engines registered under Rule 12 shall not be subject to Rule 69.4.1. However, Rule 12 is not in the State Implementation Plan (SIP), and therefore cannot serve as the basis for an exclusion from a SIP-approved rule.

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (a)(3) has been removed.

**12. EPA COMMENT**

Proposed Subsection (b)(1)(ii) provides an exemption from the rule for engines that are used exclusively in agricultural operations and that are also exempt from permit requirements pursuant to Rule 11. The District should remove this exemption, which is consistent with EPA's past comments on a previous version of Rule 69.4.1.

**DISTRICT RESPONSE**

The District disagrees. The existing exemption provided in Subsection (b)(1)(ii) for engines used exclusively in agricultural operations mirrors an existing exemption in District Rule 69.4, which EPA approved into the SIP in 2006. Moreover, the proposed amendment to Rule 69.4.1 further limits the exemption to engines located at non-major agricultural sources that are also exempt from permit requirements pursuant to Rule 11, consistent with California Health and Safety Code section 42301.16 (SB 700, 2003). These are smaller agricultural sources that produce actual emissions less than one-half of any applicable emissions threshold for a major source.

**13. EPA COMMENT**

The allowable operating hours for testing and maintenance of emergency standby engines are ambiguous as specified in proposed Subsection (b)(3)(i). The District should clarify that any additional exempt operating time is only allowable for testing and maintenance, and not for other operations.

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (b)(3)(i) has been revised to clarify that any additional operating hours approved by the Air Pollution Control Officer (APCO) shall be for testing or maintenance purposes only.

**14. EPA COMMENT**

Proposed Subsection (b)(7) exempts engines certified by CARB or EPA from the source testing requirements of the rule. The District should clarify which certification provisions in California statewide programs are acceptable for the source testing exemption.

**DISTRICT RESPONSE**

The District agrees. For clarification, proposed language has been added to the definition of “Certified Engine” in Subsection (c)(10), specifying that compression-ignited and spark-ignited engines are certified by CARB as specified in Title 13, Division 3, Chapter 9, Article 4, Section 2423 of the California Code of Regulations (13 CCR, Section 2423), and Article 4.5, Section 2433 (13 CCR, Section 2433), respectively.

**15. EPA COMMENT**

The definition for “Testing or Maintenance” in proposed Subsection (c)(36) includes provisions for additional hours of operation upon approval by the APCO when there was a breakdown or failure during maintenance operation. There is no limit on the additional hours that could be provided, which is a rule approvability issue.

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (c)(36) has been revised to allow, upon written approval by the APCO, not more than 10 additional hours of operation for testing or maintenance purposes provided that the owner or operator has demonstrated to the satisfaction of the APCO that such additional operation is necessary.

**16. EPA COMMENT**

The monitoring requirements in proposed Subsection (e)(2) appear to include APCO discretion as to which operating parameters should be monitored for various types of engines with add-on emissions control equipment. This is a rule approvability issue, and the District should specify the minimum monitoring requirements by replacing the word “may” with the word “shall”.

**DISTRICT RESPONSE**

The District agrees and has revised proposed Subsection (e)(2) as suggested.

As a related revision, proposed new Subsection (b)(5) has been added to provide an exemption from the requirement to monitor operating characteristics for any EPA-certified engine with manufacturer-installed add-on emissions control equipment. This proposed exemption is necessary because such engines automatically monitor the operating characteristics specified in Subsection (e)(2) and the resulting data are stored in the engines’ internal memory for use as feedback inputs. These parameter readings may not be readily available to the operator, thus making the corresponding monitoring and record keeping requirements infeasible for such engines.

**17. EPA COMMENT**

The District should specify the training requirements or qualifications for portable analyzer operators in proposed Subsection (e)(5). The rule should include a requirement for portable analyzer operators to be certified or trained in another air district SIP-approved training program.

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (e)(5)(v) has been added to specify that a trained operator of a portable analyzer must have completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers, and received a certification issued by SCAQMD.

**18. EPA COMMENT**

The District should clarify that an engine found to be exceeding the emission standards pursuant to Subsection (e)(5)(iv) is in violation of the rule if not brought into compliance within 20 calendar days.

**DISTRICT RESPONSE**

The District agrees. Proposed Subsection (e)(5)(iv) has been revised to clarify that the exceedance shall be considered a rule violation if the engine is not brought into compliance within 20 calendar days.

**19. EPA COMMENT**

The records retention schedule specified in proposed Subsection (g)(10) should be extended to five years.

**DISTRICT RESPONSE**

The District disagrees. The proposed requirement to retain records for three years is consistent with all other District prohibitory rules.

**20. EPA COMMENT**

Proposed Subsection (e)(4) requires that new engines rated at 1,000 bhp or greater, and permitted to operate more than 2,000 hours per year, install a Continuous Emissions Monitoring System (CEMS). However, there are no requirements in Section (i) that a Relative Accuracy Test Audit (RATA) be conducted, which is a general requirement to validate CEMS. Subsection (i)(2) requires that such new 1,000 bhp engines be source tested at least once per year. While this source test requirement is suitable for engines without CEMS installed, a RATA requirement may be more appropriate for CEMS-equipped units.

**DISTRICT RESPONSE**

The District agrees. Proposed new Subsection (i)(3) has been added to require that a RATA be conducted on CEMS-equipped engines at least once per permit year.

**21. EPA COMMENT**

Proposed Subsections (i)(1) and (2) specify the required frequency of source testing. However, the language is ambiguous as to whether APCO discretion is limited to requiring more frequent testing than what is already required, or if the frequency of source testing in general is subject to APCO discretion. This language regarding APCO discretion should be clarified or removed.

**DISTRICT RESPONSE**

The District agrees. Proposed Subsections (i)(1) and (2) have been revised to clarify that source testing be conducted at the specified intervals, unless *more frequent* testing is otherwise specified in writing by the APCO.