

ATTACHMENT 3

**NEW SOURCE PERFORMANCE STANDARDS FOR
COMPRESSION IGNITION FIRE PUMP ENGINES**

I. APPLICABILITY

[40 CFR 60.4200(a)(2)(ii)]

The standards contained in this Attachment apply to owners/operators of stationary compression ignition engines that are manufactured after July 1, 2006 and certified as National Fire Protection Association (NFPA) fire pump engines. Specifically applicable units are identified as such in the Authorization to Operate (ATO). These standards are required in addition to those in the Specific Conditions and Additional Permit Requirements. **All conditions in this attachment are Federally Enforceable Conditions.**

II. OPERATIONAL LIMITATIONS

[PCC 17.12.185.A.2]

A. Emission Limitations

1. CI ICE subject to this Attachment must be certified by the manufacturer at or below the applicable emission standards and shall continue to meet them for the useful life of the engine. Applicable emission standards and the useful life of the engine are identified in Section III (Supplemental Requirements) of the ATO. [40 CFR 60.4203, 4205(c), & Table 4 of Subpart IIII]
2. The Permittee must operate and maintain applicable units according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. [40 CFR 60.4206]

B. Fuel Requirements

[40 CFR 60.4207]

1. Beginning October 1, 2007, fire pump engines that use diesel fuel must use diesel fuel that meets the following requirements on a per-gallon basis: [40 CFR 60.4207(a) & 80.510(a)]
 - a. Sulfur content: 500 parts per million (ppm) maximum;
 - b. Cetane index or aromatic content, as follows:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.
2. Beginning October 1, 2010, fire pump engines with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the following requirements on a per-gallon basis: [40 CFR 60.4207(b) & 80.510(b)]
 - a. Sulfur content: 15 ppm maximum;
 - b. Cetane index or aromatic content, as follows:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.

3. With respect to pre-2011 model year fire pump engines, the Permittee may petition the **Administrator** for approval to use remaining non-compliant fuel that does not meet the fuel requirements of II.B.1 & 2 of this Attachment beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the Permittee is required to submit a new petition to the **Administrator**. [40 CFR 60.4207(c)]

C. Emergency Designation [40 CFR 60.4211(e)]

Emergency fire pump engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units are limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The Permittee may petition the Control Officer for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted in this Attachment, is prohibited.

D. Compliance [40 CFR 60.4211]

1. The Permittee must operate and maintain the fire pump engine(s) and control device (if applicable) according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. In addition, the Permittee may only change those settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]
2. With respect to CI fire pump engines manufactured prior to the model years in the following table, the Permittee must demonstrate compliance according to one of the following methods: [40 CFR 60.4211(b) & Table 3 of Subpart IIII]

Engine Power	Model Year
HP<100	2011
100≤HP<175	2010
175≤HP<750	2009
HP>750	2008

- a. Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
 - b. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in 40 CFR 60.4212 and the methods must have been followed correctly.
 - c. Keeping records of engine manufacturer data indicating compliance with the standards.
 - d. Keeping records of control device vendor data indicating compliance with the standards.
 - e. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.
3. With respect to CI fire pump engines manufactured during or after the model years in the table in II.D.2 of this Attachment, the Permittee must demonstrate compliance with the emission

standards specified in the ATO by purchasing an engine certified to those emission standards. The engine must be installed and configured according to the manufacturer's specifications. [40 CFR 60.4211(c)]

III. Monitoring Requirement [40 CFR 60.4209(a)] [PCC 17.12.185.A.3.d]

The Permittee must install a non-resettable hour meter on each CI fire pump engine prior to startup of each engine.

IV. Recordkeeping Requirements [PCC 17.12.185.A.4]

A. Hourly Operational Records [40 CFR 60.4214(b)]

Starting with the model years in the following table, if the fire pump engine(s) does not meet the standards applicable to a non-emergency unit for the same model year and horsepower, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must also record the time of operation of the engine and the reason the engine was in operation during that time.

Engine Power	Model Year
25<HP<75	2013
75<HP<175	2012
HP>175	2011

B. Diesel Fuel Recordkeeping

The Permittee shall maintain records that verify compliance with the diesel fuel requirements in II.B of the Specific Conditions.

V. Testing Requirements [40 CFR 60.4212] [PCC 17.12.185.A.3.a]

Should the Permittee elect to or be required to conduct performance testing to demonstrate compliance with the applicable standards of this Attachment, the Permittee must do so in accordance with 40 CFR 60.4212.

VI. Additional Requirements [40 CFR 60.4218 & 60.4214(b)]

The General Provisions of 40 CFR 60.1 through 19 apply to all applicable fire pump engine(s) as indicated in Table 8 of 40 CFR Subpart IIII except that the Permittee is not required to submit an initial notification.

VII Facility Recordkeeping [PCC 17.12.185.A.4]

All records required by, or generated to verify compliance with this attachment shall be maintained for five years.