15A NCAC 2D .0524 "NEW SOURCE PERFORMANCE STANDARDS" - For the following equipment, The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR 60, Subpart indicated below, and including Subpart A "General Provisions."

Emission Source(s)	Regulation
(NO SOURCES SELECTED)	40 CFR 60, Subpart IIII "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)"

a. Emission Standards:

FOR NON-EMERGENCY AND EMERGENCY ENGINES

i. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine.

FOR NON-EMERGENCY ENGINES

i. For the pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder, the Permittee must comply with the applicable emission standards in Table 1 of 40 CFR 60 Subpart IIII.[60.4204(a)]

ii. For the pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder, the Permittee must comply with the emission standards in 40 CFR 94.8(a)(1).[60.4204(a)]

iii. For the 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder, the Permittee must comply with the emission standards for new CI engines in 40 CFR 60.4201, as applicable.[60.4204(b)]

iv. For the non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, the Permittee must meet the following requirements:

A. Limit the emissions of NO_x in the stationary CI ICE exhaust as listed in 40 CFR 60.4204(c).[60.4204(c)]

B. Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the engine exhaust to 0.15 grams per KW-hour (0.11 grams per HP-hour).[60.4204(c)(4)]

FOR EMERGENCY ENGINES

i. For the pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines, the Permittee must comply with the emission standards in Table 1 of 40 CFR 60, Subpart IIII.[60.4205(a)]

ii. For the pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines, the Permittee must comply with the emission standards in 40 CFR 94.8(a)(1).[60.4205(a)]

iii. For the 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines, the Permittee must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power.[60.4205(b)]

iv. For the fire pump engines with a displacement of less than 30 liters per cylinder, the Permittee must comply with the emission standards in Table 4 of 40 CFR 60 Subpart IIII, for all pollutants.[60.4205(c)]

v. For the emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, the Permittee must meet the following requirements:

   A. Limit the emissions of NO_x in the stationary CI ICE exhaust as listed in 40 CFR 60.4205(d).[60.4205(d)(1) and (d)(2)]

   B. Limit the emissions of PM in the stationary CI ICE exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).[60.4205(d)(3)]

b. Fuel Requirements:

FOR NON-EMERGENCY AND EMERGENCY ENGINES

i. Engines subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, as follows: [60.4207]

A. Has a maximum sulfur content of 15 ppm; and [40 CFR 80.510(b)]

B. Has a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.[40 CFR 80.510(b)]

ii. Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).[60.4207(d)]

c. Monitoring Requirements:

FOR NON-EMERGENCY ENGINES

i. If the non-emergency stationary CI ICE is equipped with a diesel particulate filter to comply with the emissions standards listed above, the diesel particulate filter must be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached.[60.4209(b)]

FOR EMERGENCY ENGINES

i. For the emergency stationary CI ICE that does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine.[60.4209(a)]

d. Compliance Requirements:

FOR NON-EMERGENCY AND EMERGENCY ENGINES

i. The Permittee must do all the following, except as permitted under 40 CFR 60.4211(g):[60.4211(a)]

A. operate and maintain the stationary CI ICE and control device according to the manufacturer's written emission-related instructions or procedures developed by the Permittee that are approved by the engine manufacturer.[60.4211(a)(1)]

B. Change those emission-related settings that are permitted by the manufacturer.[60.4211(a)(2)]

C. Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.[60.4211(a)(3)]

ii. For the pre-2007 model year stationary CI ICE with a displacement of less than 10 liters per cylinder that is not a fire pump engine, or for the CI fire pump engine that is manufactured prior to the model years in Table 3 of 40 CFR 60 Subpart IIII and must comply with the emission standards specified in 40 CFR 60.4205(c), the Permittee must demonstrate compliance according to **one** of the methods specified below:[60.4211(b)]

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.[60.4211(b)(1)]

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 this subpart and these methods must have been followed correctly.[60.4211(b)(2)]

C. Keeping records of engine manufacturer data indicating compliance with the standards.[60.4211(b)(3)]

D. Keeping records of control device vendor data indicating compliance with the standards.[60.4211(b)(4)]

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.[60.4211(b)(5)]

iii. For the 2007 model year and later stationary CI ICE that must comply with the emission standards specified in 40 CFR 60.4204(b) or 4205(b), or for the CI fire pump engine that is manufactured during or after the model year that applies to the fire pump engine power rating in Table 3 to 40 CFR 60 Subpart IIII that must comply with the emission standards specified in 40 CFR 60.4205(c), the Permittee must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b), or 4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g).[60.4211(c)]

iv. For the stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, the Permittee must demonstrate compliance according to the following requirements:

A. Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in 40 CFR 60.4213.[60.4211(d)(1)]

B. Establishing operating parameters to be monitored continuously to ensure the stationary ICE continues to meet the emission standards. The Permittee must petition EPA for approval of operating parameters to be monitored continuously. The petition must include the information described in 40 CFR 60.4211(d)(2)(i) through (v).[60.4211(d)(2)]

C. For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in 40 CFR 60.4213.[60.4211(d)(3)]

v. An owner or operator of a modified or reconstructed stationary CI ICE that must comply with the emission standards of 40 CFR 60.4204(e) or 60.4205(f) must demonstrate compliance according to **one** of the following methods:[60.4211(e)]

A. Purchasing, or otherwise owning or operating, and engine certified to the emission standards in 40 CFR 60.4204(e) or 60.4205(f), as applicable.[60.4211(e)]

B. Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in 40 CFR 60.4212 or 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.[60.4211(e)]

vi. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or if the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance per the requirements of 40 CFR 60.4211(g).[60.4211(g)]

FOR EMERGENCY ENGINES

vii. The Permittee may operate the emergency stationary ICE 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 is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if records are maintained indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hour per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency satiations for 50 hours per year as permitted in this section, is prohibited.[60.4211(f)]

e. Notification Requirements: In addition to any other notification requirements to the Environmental Protection Agency (EPA), the Permittee is required to notify the Regional Supervisor, DAQ, in WRITING, of the following:

FOR NON-EMERGENCY AND EMERGENCY ENGINES

i. The date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected source is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.[40 CFR 60.7(a)(1)]

ii. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.[40 CFR 60.7(a)(3)]

iii. If the stationary CI ICE is greater than 2,237 KW (3,000 HP), or has a displacement of greater than or equal to 10 liters per cylinder, or is a pre-2007 model year engine that is greater than 130 KW (175 HP) and not certified, then the Permittee must submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the information listed in 40 CFR 60.4214(a)(1).[60.4214(a) and (a)(1)]

iv. If the engine is an emergency stationary ICE, the Permittee is **not** required to submit an initial notification.[60.4214(b)]

f. Recordkeeping Requirements:

FOR NON-EMERGENCY AND EMERGENCY ENGINES

i. If the stationary CI ICE is greater than 2,237 KW (3,000 HP), or has a displacement of greater than or equal to 10 liters per cylinder, or is a pre-2007 model year engine that is greater than 130 KW (175 HP) and not certified, then the Permittee must keep records of the following:

A. All notifications submitted to comply with 40 CFR 60 Subpart IIII and all documentation supporting any notification;[60.4214(a)(2)(i)]

B. Maintenance conducted on the engine;[60.4214(a)(2)(ii)]

C. If the stationary CI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards;[60.4214(a)(2)(iii)]

D. If the stationary CI ICE is not a certified engine, documentation that the engine meets the emissions standards; [60.4214(a)(2)(iv)]

E. If the stationary CI ICE is equipped with a diesel particulate filter, the Permittee must keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached.[60.4214(c)]

F. All records required under this section shall be maintained for a period of two (2) years following the date of such record. All records shall be kept on-site and made available to DAQ personnel upon request. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if recordkeeping requirements are not maintained.[40 CFR 60.7(f)]

FOR EMERGENCY ENGINES

G. Starting with the model years in Table 5 to 40 CFR 60, Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, 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 record the time of operation of the engine and the reason the engine was in operation during that time.[60.4214(b)]