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 Part 60, Subpart indicated below, and including Subpart A "General Provisions."

Emission Source(s)	Regulation
XXX	**Subpart JJJJ** – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE)

a. NSPS Fuel Requirements – As required by 15A NCAC 2D .0524, the following fuel requirements shall apply:

   i. Any SI ICE subject to this Subpart that uses gasoline must use gasoline that has a sulfur content of no more than 30 parts per million, per the requirements of 40 CFR 80.195.[60.4235]

   ii. For the purposes of this Subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.[60.4230(d)]

b. NSPS Compliance Requirements – As required by 15A NCAC 2D .0524, the following compliance requirements shall apply:

   i. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine.[60.4234]

   ii. Any SI ICE subject to this subpart must meet the emissions standards as listed in 40 CFR 60.4233.[60.4233]

   iii. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in 40 CFR 60.4244.[60.4244]

   iv. If your SI ICE is manufactured after July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet **one** of the requirements specified in (A) and (B) of this section.[60.4243(a)]

A. If you operate and maintain the certified stationary SI ICE and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI ICE will not be considered out of compliance.[60.4243(a)(1)]

B. If you do not operate and maintain the certified stationary SI ICE and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to the following, as appropriate.[60.4243(a)(2)]

I. If your stationary SI ICE is less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.[60.4243(a)(2)(i)]

II. If your stationary SI ICE is greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.[60.4243(a)(2)(ii)]

III. If your stationary SI ICE is greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.[60.4243(a)(2)(iii)]

v. If your stationary SI ICE must comply with the emission standards specified in 40 CFR 60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (A) and (B) of this section.[60.4243(b)]

A. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (b)(iv) of this section.[60.4243(b)(1)]

B. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to the following:[60.4243(b)(2)]

I. If your stationary SI ICE is greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.[60.4243(b)(2)(i)]

II. If your stationary SI ICE is greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.[60.4243(b)(2)(ii)]

vi. If your stationary SI ICE must comply with the emission standards specified in 40 CFR 60.4233(f), you must demonstrate compliance according to paragraph (b)(v)(B)(I) or (II) of this section, except that if you comply according to paragraph (b)(v)(B)(I) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in 40 CFR 60.4233(f).[60.4243(c)]

vii. Emergency stationary ICE 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 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 the owner or operator maintains records 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 hours 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 power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.[60.4243(d)]

viii. If your stationary SI ICE is natural gas fired, you may operate this engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, you are required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.[60.4243(e)]

ix. If your stationary SI ICE is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI ICE and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).[60.4243(f)]

x. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.[60.4243(g)]

xi. If your stationary SI ICE is greater than or equal to 500 HP, is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (A) through (D) of this section.[60.4243(h)]

A. Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.[60.4243(h)(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.[60.4243(h)(2)]

C. Keeping records of engine manufacturer data indicating compliance with the standards.[60.4243(h)(3)]

D. Keeping records of control device vendor data indicating compliance with the standards.[60.4243(h)(4)]

xii. If you are an owner or operator of a modified or reconstructed stationary SI internal combustion engine and must comply with the emission standards specified in 40 CFR 60.4233(f), you must demonstrate compliance according to one of the methods specified in paragraphs (A) or (B) of this section.[60.4243(i)]

A. Purchasing, or otherwise owning or operating, an engine certified to the emission standards in 40 CFR 60.4233(f), as applicable.

B. Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in 40 CFR 60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

c. NSPS Monitoring Requirements – As required by 15A NCAC 2D .0524, the following monitoring requirements shall apply:

i. Starting on July 1, 2010, if the emergency stationary SI ICE that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.[60.4237(a)]

ii. Starting on January 1, 2011, if the emergency stationary SI ICE that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.[60.4237(b)]

iii. If you are an owner or operator of an emergency stationary SI ICE that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.[60.4237(c)]

d. NSPS Recordkeeping Requirements – As required by 15A NCAC 2D .0524, the following recordkeeping requirements shall apply:

i. Owners and operators of all stationary SI ICE must keep records as follows:[60.4245]

A. All notifications submitted to comply with this subpart and all documentation supporting any notification.[60.4245(a)(1)]

B. Maintenance conducted on the engine.[60.4245(a)(2)]

C. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.[60.4245(a)(3)]

D. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.[60.4245(a)(4)]

ii. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.[60.4245(b)]

iii. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231 must submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the information in paragraphs (A) through (E) of this section.[60.4245(c)]

A. Name and address of the owner or operator;[60.4245(c)(1)]

B. The address of the affected source;[60.4245(c)(2)]

C. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;[60.4245(c)(3)]

D. Emission control equipment;[60.4245(c)(4)] and

E. Fuel used.[60.4245(c)(5)]

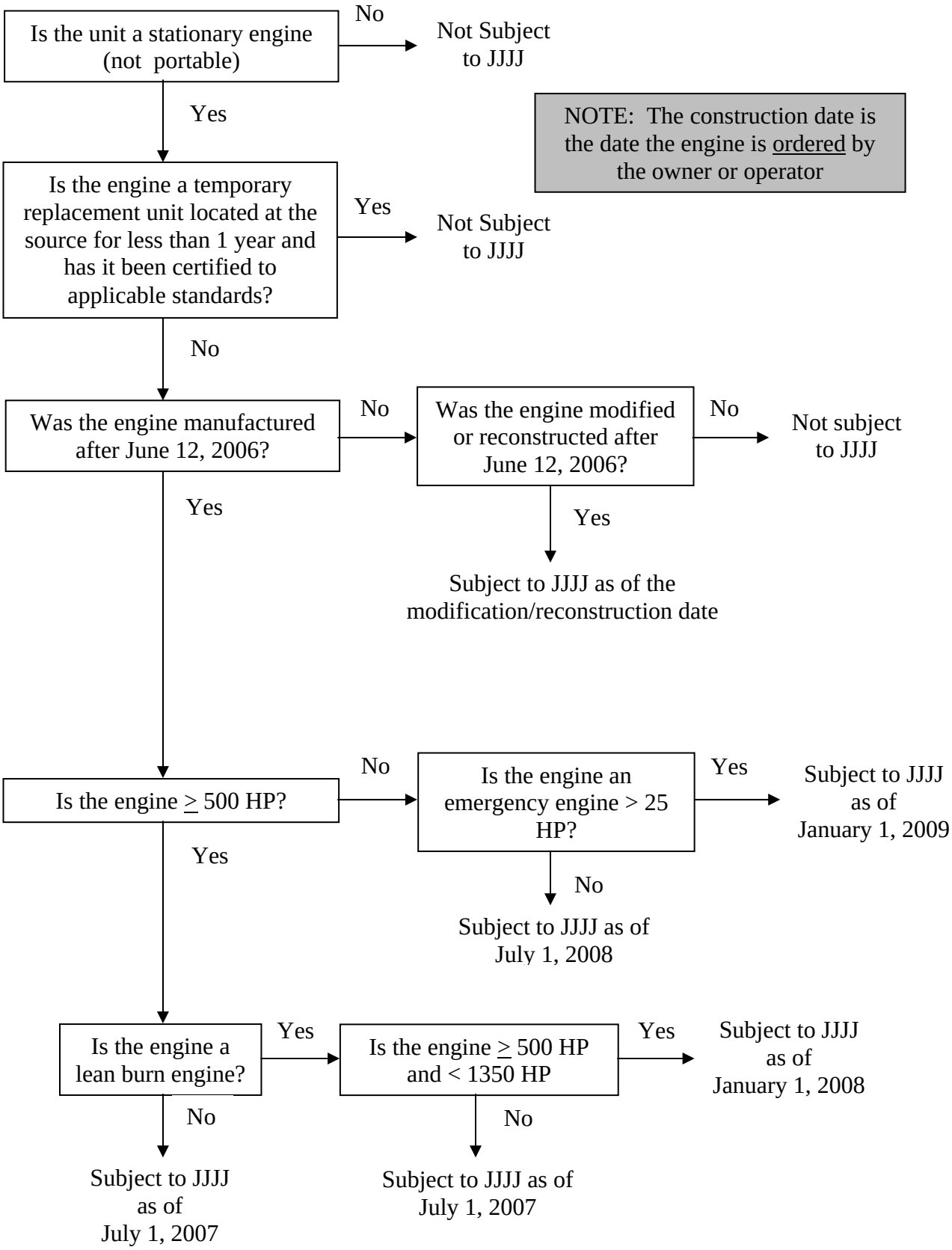
iv. If required per sections (b)(iv)(A) or (b)(iv)(B), a copy of the maintenance plan and conducted maintenance.[60.4243(a)(1)

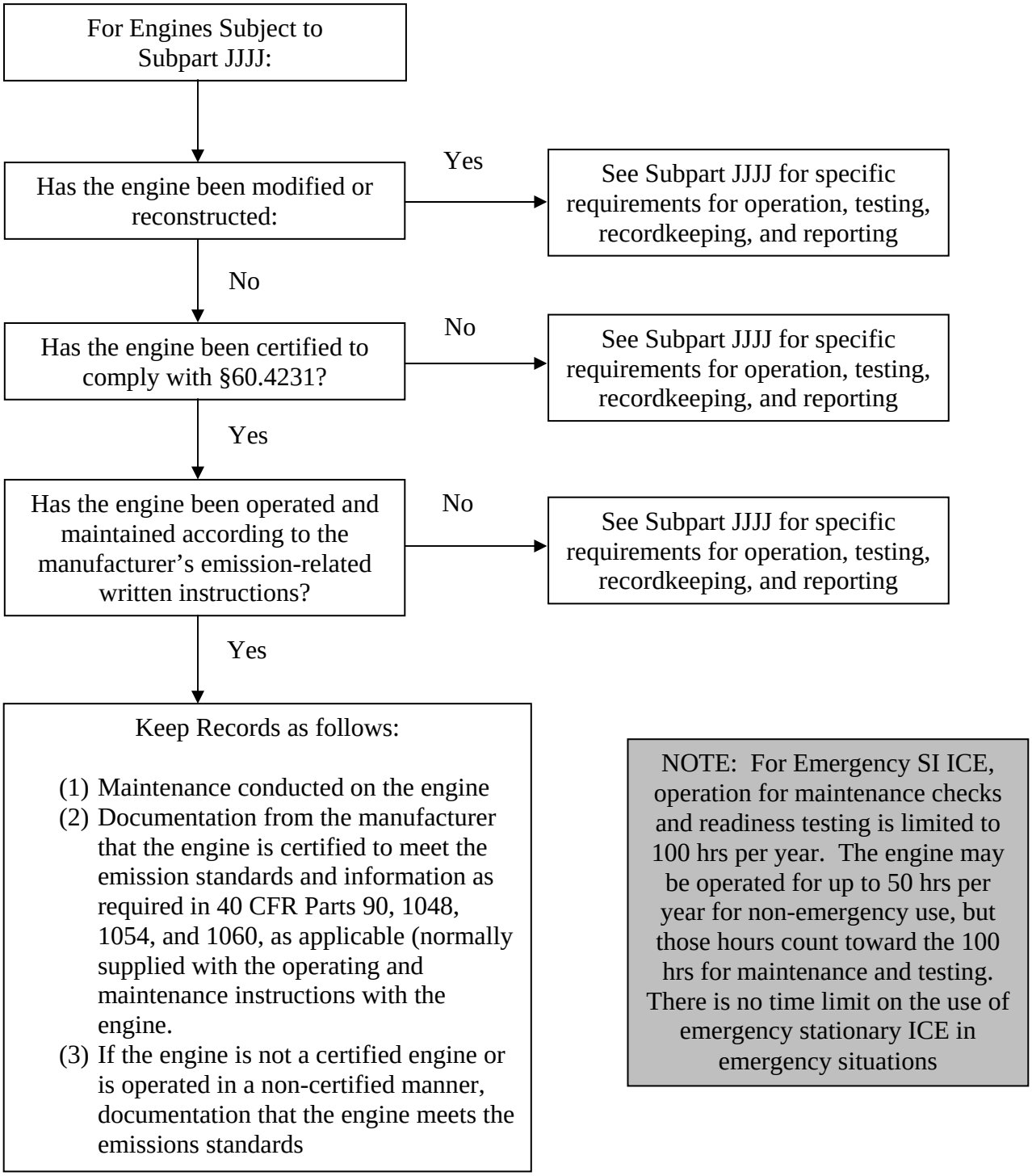
v. Copies of any performance testing required under this Subpart.[60.4245(d)]

vi. All records required under this section shall be maintained for a period of two 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 noncompliance with 15A NCAC 2D .0524 if recordkeeping requirements are not maintained.[40 CFR 60.7(f)]

e. NSPS Reporting Requirements – As required by 15A NCAC 2D .0524, the following reporting requirements shall apply:

i. If your SI ICE is subject to performance testing as required in section (b)(iv)(B), (b)(v)(B), (b)(viii), (b)(ix) or (b)(xii)(B), and conducted according to the requirements of 40 CFR 60.4244, you must submit a copy of each performance test within 60 days after the test has been completed.[60.4243(a)(2), (b)(2), (e), and (f)]


Is the unit a stationary engine (not portable)
No
Not Subject to JJJJ
Yes
NOTE: The construction date is the date the engine is ordered by the owner or operator
Is the engine a temporary replacement unit located at the source for less than 1 year and has it been certified to applicable standards?
Yes
Not Subject to JJJJ
No
Was the engine manufactured after June 12, 2006?
No
Was the engine modified or reconstructed after June 12, 2006?
No
Not subject to JJJJ
Yes
Subject to JJJJ as of the modification/reconstruction date
Yes
Is the engine ≥ 500 HP?
No
Is the engine an emergency engine > 25 HP?
Yes
Subject to JJJJ as of January 1, 2009
Yes
No
Subject to JJJJ as of July 1, 2008
Is the engine a lean burn engine?
Yes
Is the engine ≥ 500 HP and < 1350 HP
Yes
Subject to JJJJ as of January 1, 2008
No
No
Subject to JJJJ as of July 1, 2007
Subject to JJJJ as of July 1, 2007


For Engines Subject to Subpart JJJJ:
Has the engine been modified or reconstructed:
Yes
See Subpart JJJJ for specific requirements for operation, testing, recordkeeping, and reporting
No
Has the engine been certified to comply with §60.4231?
No
See Subpart JJJJ for specific requirements for operation, testing, recordkeeping, and reporting
Yes
Has the engine been operated and maintained according to the manufacturer's emission-related written instructions?
No
See Subpart JJJJ for specific requirements for operation, testing, recordkeeping, and reporting
Yes
Keep Records as follows:
(1) Maintenance conducted on the engine
(2) Documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable (normally supplied with the operating and maintenance instructions with the engine.
(3) If the engine is not a certified engine or is operated in a non-certified manner, documentation that the engine meets the emissions standards
NOTE: For Emergency SI ICE, operation for maintenance checks and readiness testing is limited to 100 hrs per year. The engine may be operated for up to 50 hrs per year for non-emergency use, but those hours count toward the 100 hrs for maintenance and testing. There is no time limit on the use of emergency stationary ICE in emergency situations