



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION | AUGUSTA, MAINE 04333-0017
DEPARTMENT ORDER

P & K Sand and Gravel, Inc.
Cumberland County
Casco, Maine
A-741-71-F-R/A

Departmental
Findings of Fact and Order
Air Emission License
Renewal and
After-the-Fact Amendment

Findings of Fact

After review of the air emission license renewal and amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. Registration

A. Introduction

P & K Sand and Gravel, Inc. (P&K) has applied to renew their Air Emission License for the operation of their crushed stone and gravel facility located at 90 Indian Acres Road, Casco, Maine.

The main office is located at 234 Casco Road, Naples, Maine.

This license completes the processing of applications with the following submission number as assigned by the Department: 603187 and 603942 (both accepted on 04/09/2026).

P&K has requested an after-the-fact amendment to their license in order to make the following changes:

1. Readdress Generator A170 as a stationary engine;
2. Replace Generator A215 with Generator A247; and
3. Replace A199 Cone Crusher with A247 Cone Crusher.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Rock Crushers

Designation	Powered	Process Rate	Date of Manuf.	Date of Install.	Control Device
A173 Jaw Crusher	Generator A170	450 ton/hr	2006	2006	Spray Nozzles
A247 Cone Crusher ^A	Generator A247	100 ton/hr	2021	2021	Spray Nozzles
A199 Cone Crusher ^B	A215 Gen. #2	100 ton/hr	2005	2005	Spray Nozzles

^A New to license

^B Removed from license

Engines

Unit ID	Max. Capacity	Max. Firing Rate	Fuel Type	Date of Manuf.	Date of Install.
Generator A170	5.53 MMBtu/hr	40.4 gal/hr	Distillate Fuel	1990	2001
Generator A247 ^A	5.07 MMBtu/hr	37.0 gal/hr	Distillate Fuel	1983	2021
A215 Gen. #2 ^B	5.07 MMBtu/hr	37.0 gal/hr	Distillate Fuel	2001	2002

^A New to license

^B Removed from license

P&K may operate other nonmetallic mineral processing equipment not explicitly listed including grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck or railcar loading stations. Requirements for this equipment are included in sections of this license for Nonmetallic Mineral Processing Plants.

P&K may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the [Department's website](http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf); <http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>.

Additionally, P&K may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

C. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants (not including concrete batch plants), or any other facility processing nonmetallic minerals.

Portable or Non-Road Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

Records or Logs mean either hardcopy or electronic records.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the date this license was issued.

P&K has applied to renew currently licensed emission units as well as modify their license as addressed in Section I(A) above.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emissions" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emissions Levels
PM	0.5	0.5	-	100
PM ₁₀	0.5	0.5	-	100
PM _{2.5}	-	0.5	-	100
SO ₂	0.1	0.1	-	100
NO _x	14.3	14.3	-	100
CO	3.8	1.1	-2.7	100
VOC	0.4	0.4	-	50*

* P&K is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emissions level for VOC is 50 tpy.

Therefore, this license is considered to be both a renewal and a minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules C.M.R. ch. 115.

E. Facility Classification

With the annual fuel limit on Generators A170 and A247, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because P&K is subject to license restrictions that keep facility emissions below major source thresholds for NO_x; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. Best Practical Treatment (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Nonmetallic Mineral Processing Plants

A173 Jaw Crusher, a Pioneer model 3352, and A247 Cone Crusher are fixed units which were manufactured in 2006 and 2021, respectively, with rated capacities of 450 tons/hr and 100 tons/hr, respectively. The nonmetallic mineral processing plant also consists of other equipment associated with A173 Jaw Crusher and A247 Cone Crusher, such as screens and belt conveyors. A247 Cone Crusher is new to this air emission license.

1. BACT/BPT Findings

The regulated pollutant from nonmetallic mineral processing plants is particulate matter. To meet the requirements of BPT for control of particulate matter emissions, P&K shall install and maintain water sprays on the nonmetallic mineral processing plants and operate as needed, when the units are in operation, to control visible emissions.

2. Visible Emissions

Visible emissions from rock crushers A173 Jaw Crusher and A247 Cone Crusher shall each be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(2)]

3. New Source Performance Standards

The federal regulation *Standards of Performance for Nonmetallic Mineral Processing Plants*, 40 C.F.R. Part 60, Subpart OOO, applies to equipment at nonmetallic mineral processing plants with capacities greater than 25 ton/hr for fixed plants and 150 ton/hr for portable plants. The requirements of Subpart OOO apply to any crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, or enclosed truck or railcar loading station at a nonmetallic mineral processing plant greater than the sizes listed above which commenced construction, modification, or reconstruction after August 31, 1983.

A173 Jaw Crusher and A247 Cone Crusher are part of a nonmetallic mineral processing plant with a maximum capacity of greater than 25 ton/hr and were manufactured after August 31, 1983. These crushers are therefore affected facilities subject to 40 C.F.R. Part 60, Subpart OOO. **Any grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, or enclosed truck or railcar loading station associated with these crushers are also affected facilities subject to 40 C.F.R. Part 60, Subpart OOO.** [40 C.F.R. §§ 60.670(c) and (e)]

a. Notification

P&K shall submit notification to the Department and EPA of the date of initial startup of every affected facility (as listed above) postmarked within 15 days of the startup. This notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted. For portable units, this notification shall also include both the home office and the current address or location of the portable plant. [40 C.F.R. § 60.676(i)]

As specified in the Order section of this license, the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60, Subpart OOO and corresponding sections of Subpart A, P&K shall comply with the notification and recordkeeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for § 60.7(a)(1) pursuant to § 60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

Please note, although P&K may have already submitted notifications and conducted performance testing for existing equipment, any new affected facility (any grinding mill, screening operation, bucket elevator, belt

conveyor, bagging operation, storage bin, or enclosed truck or railcar loading station) subsequently brought on-site to replace or operate in conjunction with an affected facility must also comply with all applicable requirements of 40 C.F.R. Part 60, Subpart OOO including notification, testing, and recordkeeping requirements.

b. Standards

Subpart OOO, Table 3 contains applicable visible emission requirements for affected facilities.

Visible emissions from A173 Jaw Crusher shall not exceed 15% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from A247 Cone Crusher shall not exceed 12% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

The Department has determined that the visible emission limit in 06-096 C.M.R. ch. 101 applicable to the rock crushers is more stringent than the applicable limit in 40 C.F.R. Part 60, Subpart OOO. Therefore, the visible emission limits for A173 Jaw Crusher and A247 Cone Crusher have been streamlined to the more stringent limit, and only this more stringent limit shall be included in the Order of this air emission license.

Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction before April 22, 2008, shall not exceed 10% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction on or after April 22, 2008, shall not exceed 7% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

The Department has determined that the visible emission limit in 40 C.F.R. Part 60, Subpart OOO applicable to affected equipment other than rock crushers is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for has been streamlined to the

more stringent limit, and only this more stringent limit shall be included in the Order of this air emission license.

c. Monitoring Requirements

P&K shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. P&K shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required shall be included in the maintenance records. The maintenance records shall be kept on-site at the rock crushing location. [40 C.F.R. §§ 60.674(b) and 60.676(b)(1)]

d. Testing Requirements

Subpart 000, § 60.675 requires that an initial performance test for visible emissions be conducted on A173 Jaw Crusher and A247 Cone Crusher and on all associated affected facilities subject to Subpart 000, potentially including **any associated grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station**. The performance test was completed for A173 Jaw Crusher on October 2, 2007, and documentation of this performance test has been provided to the Department.

Subpart 000 requires testing for A247 Cone Crusher in accordance with the following:

- (1) An initial performance test shall be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. If the initial performance test for a facility falls within a seasonal shutdown, then with approval from the Department, the initial performance test may be postponed until no later than 60 calendar days after resuming operation of the affected equipment. [40 C.F.R. §§ 60.672(b) and 60.675(i)]
- (2) Each performance test shall be done using the methods set forth in 40 C.F.R. Part 60, Subpart 000, § 60.675. [40 C.F.R. § 60.675(c)]
- (3) P&K shall submit a test notice to the Department at least seven days prior to conducting a performance test. [40 C.F.R. § 60.675(g)]

Please note, although P&K may submit notifications and conduct performance testing for multiple affected facilities as a group, any new affected facility subsequently brought on-site to replace or operate in conjunction with an

affected facility must also comply with all applicable requirements of 40 C.F.R. Part 60, Subpart OOO including notification and testing requirements.

C. Generators A170 and A247

Generators A170 and A247 are stationary engines used to power A173 Jaw Crusher and A247 Cone Crusher, respectively. Generators A173 and A247 have maximum capacities of 5.53 MMBtu/hr and 5.07 MMBtu/hr, respectively, firing distillate fuel. Generators A170 and A247 were manufactured in 1990 and 1983, respectively. Generator A247 is new to this air emission license.

Generator A170 was previously licensed as a portable engine. However, this generator powers a station rock crusher. Pursuant to EPA's definitions, an engine used to power stationary equipment for an entire operating season is considered a stationary engine.

The fuel fired in Generators A170 and A247 combined shall be limited to 65,000 gallons/year on a calendar year total basis of distillate fuel with a sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). This fuel limit shall apply regardless of where the units are operated.

1. BACT Findings

Following is a BACT analysis for control of emissions from Generator A247.

a. Particulate Matter (PM, PM₁₀, PM_{2.5})

P&K burns only low-ash content fuel, distillate fuel, in this engine. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀/PM_{2.5} emissions from Generator A247 is the use of ultra-low-sulfur distillate fuel, a combined fuel limit with Generator A170 of 65,000 gallons/year, and emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

P&K has proposed to fire only distillate fuel with a sulfur content not to exceed 0.0015% by weight. The use of this fuel results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from Generator A247 is the use of ultra-low-sulfur distillate fuel and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

Several control strategies were considered for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), and proper operation and maintenance of the engines.

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. Both methods include injection of a NO_x reducing agent, typically ammonia or urea, where the reagent reacts with NO_x to form nitrogen and water. Each technology is effective within a specific temperature range, 500 – 1,200 °F for SCR and 1,400 – 1,600 °F for SNCR. However, both SCR and SNCR have the negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than these emergency engines.

BACT for NO_x emissions from Generator A247 is a combined fuel limit with Generator A170 of 65,000 gallons/year and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

P&K has proposed the use of an oxidation catalyst to control emissions of CO to the levels required by 40 C.F.R. Part 63, Subpart ZZZZ (described further below). The catalyst performs oxidation reactions that reduce both emissions of CO and VOC.

BACT for CO and VOC emissions from Generator A247 is use of an oxidation catalyst in accordance with the requirements of 40 C.F.R. Part 63, Subpart ZZZZ, a combined fuel limit with Generator A170 of 65,000 gallons/year, and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for Generator A247 were based on the following:

PM/PM ₁₀ /PM _{2.5}	– 0.12 lb/MMBtu, 06-096 C.M.R. ch. 103
SO ₂	– Combustion of distillate fuel with a sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	– 3.20 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
CO	– 0.255 lb/MMBtu based on the emission factor in AP-42 Table 3.4-1 dated 4/25 reduced by 70% per Subpart ZZZZ requirements
VOC	– 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
Visible Emissions	– 06-096 C.M.R. ch. 101

2. BPT Findings

The BPT emission limits for Generator A170 are based on the following:

- PM/PM₁₀/PM_{2.5} – 0.12 lb/MMBtu, 06-096 C.M.R. ch. 103
- SO₂ – Combustion of distillate fuel with a sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x – 3.2 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
- CO – 0.255 lb/MMBtu based on the emission factor in AP-42 Table 3.4-1 dated 4/25 and reduced by 70% per Subpart ZZZZ requirements
- VOC – 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
- Visible Emissions – 06-096 C.M.R. ch. 101

The BACT/BPT emission limits for the generators are the following:

Unit	Pollutant	lb/MMBtu
Generator A170	PM	0.12
Generator A247	PM	0.12

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator A170	0.66	0.66	0.66	0.01	17.70	1.41	0.50
Generator A247	0.61	0.61	0.61	0.01	16.22	1.29	0.46

Visible emissions from Generators A170 and A247 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time P&K shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

- a. The duration of the startup shall not exceed 30 minutes per event;
- b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- c. P&K shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

3. Chapter 169

Generators A170 and A247 were installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and are therefore exempt from this rule pursuant to section 1.

4. New Source Performance Standards (NSPS)

Generators A170 and A247 were manufactured prior to April 1, 2006. Therefore, they are not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII. [40 C.F.R. § 60.4200]

5. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Generators A170 and A247. The units are considered existing, stationary, reciprocating internal combustion engines rated greater than 500 brake horsepower (HP) at an area HAP source and are not subject to NSPS regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements. [40 C.F.R. § 63.6585]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart ZZZZ requirements is listed below.

a. Operational Requirements [40 C.F.R. § 63.6603(a), Table 2(d), Table 2(b)]

	Operating Limitations
Non-Emergency, non-black start CI stationary RICE > 500 HP	- Limit concentration of CO in the stationary RICE exhaust to 23 ppmv at 15% O₂ <u>or</u> reduce CO emissions 70% or more (Table 2d); - Minimize the engine's time spent at idle and minimize the engine's startup time 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 (Table 2d); - Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the most recent performance test demonstrating compliance (Table 2b); and - Maintain the temperature of the exhaust so that the catalyst inlet temperature is ≥ 450 °F and $\leq 1,350$ °F (Table 2b).

b. Ultra-Low Sulfur Diesel Fuel Requirements

Generators A170 and A247 shall only fire distillate fuel that meets the requirements of 40 C.F.R. § 1090.305. [40 C.F.R. §63.6604(b)]

c. Crankcase Filtration

P&K shall operate on Generators A170 and A247 open crankcase filtration emission control systems that reduce emissions from the crankcases by filtering the exhaust stream to remove oil mist, particulates, and metals. [40 C.F.R. § 63.6625(g)(2)]

d. General Requirements to Minimize Emissions

- (1) At all times, P&K shall operate and maintain Generators A170 and A247, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 C.F.R. § 63.6605(b)]
- (2) P&K shall minimize the time Generators A170 and A247 spend at idle during startup and minimize the engines' startup time to a period need for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards in Table 2d of Subpart ZZZZ that are applicable at all other times other than startup apply. [40 C.F.R. § 63.6625(h)]

e. Continuous Parameter Monitoring System (CPMS)

- (1) On Generator A170 and Generator A247, P&K shall install, operate, and maintain a CPMS.
- (2) P&K shall monitor the catalyst inlet temperature and reduce this data to four-hour rolling averages to demonstrate compliance with the limitations on the catalyst inlet temperature range.
- (3) P&K shall monitor the pressure drop across the catalyst once per month to demonstrate compliance with the pressure drop operating limit established during the most recent successful performance test.
- (4) P&K shall prepare a site-specific monitoring plan that addresses the requirements outlined in 40 C.F.R. § 63.6625(b)(1).
- (5) The CPMS shall be continuously operated in accordance with the site-specific monitoring plan at all times that Generator A170 and/or Generator A247 are operating except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities.

- (6) The CPMS shall collect data at least once every 15 minutes.
- (7) The minimum tolerance for a CPMS measuring temperature is 5 °F or 1% of the measuring range, whichever is larger.
- (8) CPMS audit procedures shall be performed at least annually.
[40 C.F.R. § 63.6625(b), § 63.6635, and Table 5]

f. Performance Tests

- (1) An initial performance test is required for CI engines under Subpart ZZZZ in accordance with Table 5 of Subpart ZZZZ within 180 days after the specified compliance date. [40 C.F.R. §§ 63.6612(a) and 63.6595]
- (2) During the initial performance test, the facility must demonstrate the control of CO emissions achieves the required CO percent reduction and must establish the catalyst pressure drop and catalyst inlet temperature at which compliance is demonstrated. [40 C.F.R. Part 63, Subpart ZZZZ, Table 5(1)]
- (3) P&K shall perform performance tests on each engine every 8,760 hours of operation or three years, whichever comes first. [40 C.F.R. §§ 63.6640(a), Table 3 and Table 5] Due to the fuel limit on Generators A170 and A247, it is expected the three years will always come first.
- (4) P&K shall conduct three separate test runs for each performance test. Each test run must be at least one hour, unless otherwise specified. [40 C.F.R. § 63.6620(d)]
- (5) The facility must maintain the oxidation catalyst so that the pressure drop does not change by more than 2 inches of water from the previously established pressure drop. Additionally, the facility must maintain an inlet temperature greater than or equal to 450 °F and less than or equal to 1,350 °F. [40 C.F.R. §§ 63.6630(b) and Table 2b]
- (6) If the facility changes the catalyst, P&K shall reestablish the values of the operating parameters measured during the initial or prior performance test. To reestablish operating parameters, the facility shall conduct a performance test to demonstrate that the required emission limitation is being met. [40 C.F.R. § 63.6640(b)]
- (7) If Generator A170 or Generator A247 becomes non-operational for a period of time, P&K does not need to start up the engine solely to conduct the performance test; instead, they must conduct the performance test when the engine is started up again. [40 C.F.R. § 63.6620(b)]
EPA guidance directs that if a required performance test is not conducted because the unit is not being operated for a period of time, testing must take place upon startup, meaning as soon as practically

possible as agreed to by the Department and EPA following startup. Because the facility must provide 60 days' notice of any performance test and submit a testing protocol to the Department at least 30 days prior to the test date, the facility must submit such notification and the protocol sufficiently in advance of the intended startup date to satisfy those requirements.

- (8) P&K shall provide 30 days' notice of any performance test to both the Department and EPA. If after 30 days' notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, P&K shall notify the Department and EPA as soon as possible of any delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Department and EPA by mutual agreement. [40 C.F.R. § 60.8(d)]

g. Reporting

P&K shall submit to the EPA all reports required by Subpart ZZZZ including, but not limited to, the following:

- (1) Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 C.F.R. § 63.6645(g)]
- (2) A Semiannual Compliance Report shall cover the period between January 1 and June 30 or July 1 through December 31, as applicable. The Semiannual Compliance Report shall include the following information:
 - i. Company name and address;
 - ii. Statement by a responsible official, with the official's name, title, and signature certifying accuracy of the content of the report;
 - iii. Date of the report and beginning and ending dates of the reporting period;
 - iv. If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction;
 - v. If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period;

- vi. If there were no periods during which the continuous monitoring systems (CMS), i.e. CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period; and
- vii. If there were periods of deviation from an emission or operating limitation occurring where the CPMS is used to comply with the emission and operating limitation, the Semiannual Compliance Report shall also include the following information:
 - 1. The date and time that each malfunction started and stopped;
 - 2. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;
 - 3. The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8);
 - 4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
 - 5. A summary of the total duration of the deviations during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;
 - 6. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, or other known causes, and other unknown causes;
 - 7. A summary of the total duration of CMS downtime as a percent of the total source operating time during that reporting period;
 - 8. An identification of each parameter and pollutant that was monitored;
 - 9. A brief description of the CMS;
 - 10. The date of the last CMS certification or audit;
 - 11. A description of any changes in CMS, processes, or controls since the last reporting period.

[40 C.F.R. § 63.6650 and Table 7]

h. Recordkeeping

P&K shall keep all records required by Subpart ZZZZ including, but not limited to, the following:

- (1) A copy of each notification and report that was submitted to comply with Subpart ZZZZ, including all supporting documents;
- (2) Records of the occurrence and duration of each malfunction of the engine, pollution control equipment, or monitoring equipment;
- (3) Records of performance tests and performance evaluations;

- (4) Records of action taken during periods of malfunction to minimize emissions, including corrective actions taken to restore normal operations;
- (5) Monitoring data from the CPMS; and
- (6) Records of maintenance conducted on Generator A170 and on Generator A247 and control equipment to demonstrate the equipment was operated and maintained according to the maintenance plan.
[40 C.F.R. § 63.6655]

D. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

E. Fugitive Emissions

P&K shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

P&K shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

F. Performance Test Protocol

For any performance testing required by this license, P&K shall submit to the Department a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 115, BPT]

Note: Although some federal standards, such as 40 C.F.R. Part 60, Subpart OOO, allow for a shorter pretest notification period, the Department requires pretest notification a minimum of 30 days prior to the scheduled date of the performance test unless a variance of this requirement is preapproved by the Department.

Performance Testing Guidance is available on [the Department's Emissions Testing webpage](https://www.maine.gov/dep/air/emissions/testing.html); <https://www.maine.gov/dep/air/emissions/testing.html>.

G. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on an annual fuel limit of 65,000 gallons per calendar year for Generator A170 and Generator A247.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	CO	VOC
Generators A170 and A247	0.5	0.5	0.5	0.1*	14.3	1.1	0.4
Total TPY	0.5	0.5	0.5	0.1*	14.3	1.1	0.4

* Since emissions are small but not zero, these values were rounded up to the nearest tenth of a ton.

Pollutant	Tons/year
Single HAP	7.9
Total HAP	19.9

III. Ambient Air Quality Analysis

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by-case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
PM _{2.5}	15
SO ₂	50
NO _x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

This determination is based on information provided by the applicant regarding the expected operation of the new and licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require P&K to submit additional information and may require an ambient air quality impact analysis at that time.

Order

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-741-71-F-R/A subject the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

Standard Conditions

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to beginning actual construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]

- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115] Payment of the annual air emission license fee for P&K is due by the end of August of each year. [38 M.R.S. § 353-A(3)]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]

- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
- A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. Pursuant to any other requirement of this license to perform stack testing.
 - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate

under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 C.M.R. ch. 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]
- (16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

Specific Conditions

(17) Nonmetallic Mineral Processing Plants

- A. P&K shall install and maintain spray nozzles for control of particulate matter on the nonmetallic mineral processing plants and operate as needed, when the units are in operation, to control visible emissions. [06-096 C.M.R. ch. 115, BPT/BACT]
- B. P&K shall maintain records of the dates and times of all operating hours for A173 Jaw Crusher and A247 Cone Crusher. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BPT/BACT]

- C. Visible emissions from A173 Jaw Crusher and A247 Cone Crusher shall each be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(2)]
- D. NSPS Subpart OOO Requirements

P&K shall comply with all requirements of 40 C.F.R. Part 60, Subpart OOO applicable to A173 Jaw Crusher and A247 Cone Crusher and each associated affected facility including any grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station including but not limited to, the following.

1. P&K shall submit notification to the Department of the date of initial startup of any affected facility postmarked within 15 days of the startup. This notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted. For portable units, this notification shall also include both the home office and the current address or location of the portable plant. [40 C.F.R. § 60.676(i)]
2. Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction before April 22, 2008, shall not exceed 10% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]
3. Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction on or after April 22, 2008, shall not exceed 7% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]
4. P&K shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. P&K shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required shall be included in the maintenance records. The maintenance records shall be kept on-site at the rock crushing location. [40 C.F.R. §§ 60.674(b) and 60.676(b)(1)]

5. An initial performance test shall be completed on A247 Cone Crusher in accordance with the applicable sections of 40 C.F.R. § 60.675. The performance test shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. If the initial performance test for a unit falls within a seasonal shutdown, then with approval from the Department, the initial performance test may be postponed until no later than 60 calendar days after resuming operation of the affected equipment. [40 C.F.R. §§ 60.672(b) and 60.675(i)]
6. An initial performance test shall be completed on any affected facilities operated with a rock crusher subject to 40 C.F.R. Part 60, Subpart OOO in accordance with the applicable sections of 40 C.F.R. § 60.675. This potentially includes each associated grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station. The performance test shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. If the initial performance test for a unit falls within a seasonal shutdown, then with approval from the Department, the initial performance test may be postponed until no later than 60 calendar days after resuming operation of the affected equipment. [40 C.F.R. §§ 60.672(b) and 60.675(i)]
7. P&K shall submit a test notice to the Department at least seven days prior to conducting a performance test. [40 C.F.R. § 60.675(g)]

Note: Although some federal standards, such as 40 C.F.R. Part 60, Subpart OOO, allow for a shorter pretest notification period, the Department requires pretest notification a minimum of 30 days prior to the scheduled date of the performance test unless a variance of this requirement is preapproved by the Department. [06-096 C.F.R. ch. 115, BPT]

(18) Generators A170 and A247

A. Fuel Use

1. Generators A170 and A247 are licensed to fire distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). [06-096 C.M.R. ch. 115, BACT/BPT]
2. Total fuel use for Generators A170 and A247 combined shall not exceed 65,000 gallons per calendar year of distillate fuel, regardless of where the units are operated. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Records of

annual fuel use shall be kept on a monthly and calendar year basis.
[06-096 C.M.R. ch. 115, BPT/BACT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator A170	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
Generator A247	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT/BACT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator A170	0.66	0.66	0.66	0.01	17.70	1.41	0.50
Generator A247	0.61	0.61	0.61	0.01	16.22	1.29	0.46

D. Visible Emissions

Visible emissions from Generators A170 and A247 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time P&K shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

1. The duration of the startup shall not exceed 30 minutes per event;
2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
3. P&K shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

[06-096 C.M.R. ch. 101, § 4(A)(4)]

E. Generators A170 and A247 shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

1. P&K shall meet the following operational limitations for Generators A170 and A247:

- a. Limit the concentration of CO in the exhaust to 23 ppmvd at 15% O₂ or Reduce CO emissions by 70% or more;
- b. Minimize each engine's time spent at idle and minimize each engine's startup time 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;
- c. Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the most recent successful performance test; and
- d. Maintain the temperature of the exhaust so that the catalyst inlet temperature is 450°F – 1,350°F.

[40 C.F.R. §§ 63.6603(a), Table 2(b), Table 2(d), and 06-096 C.M.R. ch. 115, BACT]

2. Crankcase Filtration

P&K shall operate on Generators A170 and A247 open crankcase filtration emission control systems that reduce emissions from the crankcases by filtering the exhaust streams to remove oil mist, particulates, and metals. [40 C.F.R. § 63.6625(g)(2)]

3. General Requirements to Minimize Emissions

- a. At all times, P&K shall operate and maintain Generators A170 and A247, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 C.F.R. § 63.6605(b)]
- b. P&K shall minimize the time Generators A170 and A247 spend at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the mission standards in Table 2d of Subpart ZZZZ that are applicable at all times other than startup apply. [40 C.F.R. § 63.6625(h)]

4. Continuous Parameter Monitoring System (CPMS)

- a. P&K shall install, operate, and maintain a CPMS on Generators A170 and A247.
- b. P&K shall monitor the catalyst inlet temperature and reduce this data to four-hour rolling averages to demonstrate compliance with the limitations on the catalyst inlet temperature range.
- c. P&K shall monitor the pressure drop across the catalyst once per month to demonstrate compliance with the operating limit established during the most recent successful performance test.
- d. P&K shall prepare a site-specific monitoring plan that addresses the requirements outlined in 40 C.F.R. § 63.6625(b)(1).
- e. The CPMS shall be continuously operated in accordance with the site-specific monitoring plan at all times that Generators A170 and/or A247 are operating except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities.
- f. The CPMS shall collect data at least once every 15 minutes.
- g. The minimum tolerance for a CPMS measuring temperature is 5 °F or 1% of the measuring range, whichever is larger.
- h. CPMS audit procedures shall be performed at least annually.
[40 C.F.R. § 63.6625(b), § 63.6635, and Table 5]

5. Performance Tests

- a. An initial performance test is required for CI engines under Subpart ZZZZ in accordance with Table 5 of Subpart ZZZZ within 180 days after the specified compliance date. [40 C.F.R. §§ 63.6612(a) and 63.6595]
- b. During the initial performance test, the facility must demonstrate the control of CO emissions achieves the required CO percent reduction and must establish the catalyst pressure drop and catalyst inlet temperature at which compliance is demonstrated. [40 C.F.R. Part 63, Subpart ZZZZ, Table 5(1)]
- c. P&K shall perform performance tests every 8,760 hours of operation or three years, whichever comes first. [40 C.F.R. § 63.6640(a), Table 3, and Table 5] Due to the combined fuel limit for Generators A170 and A247, it is expected the three years will always come first.
- d. P&K shall conduct three separate test runs for each performance test. Each test run must be at least one hour, unless otherwise specified. [40 C.F.R. § 63.6620(d)]
- e. The facility must maintain the oxidation catalyst so that the pressure drop does not change by more than 2 inches of water from the previously

established pressure drop. Additionally, the facility must maintain an inlet temperature great than or equal to 450 °F and less than or equal to 1,350 °F. [40 C.F.R. § 63.6630(b) and Table 2b]

- f. If the facility changes the catalyst, P&K shall reestablish the values of the operating parameters measured during the performance test. In order to reestablish the operating parameters, the facility shall conduct a performance test to demonstrate that the required emission limitation is being met. [40 C.F.R. § 63.6640(b)]
- g. If either Generator A170 or Generator A247 become non-operational for a period of time, P&K does not need to start the engine solely to conduct the performance test; instead, they must conduct the performance test when the engine is started up again. [40 C.F.R. § 63.6620(b)]
EPA guidance directs that if a required performance test is not conducted because the unit is not being operated for a period of time, testing must take place upon startup, meaning as soon as practically possible as agreed to by the Department and EPA following startup. Because the facility must provide 60 days' notice of any performance test and submit a testing protocol to the Department at least 30 days prior to the test date, the facility must submit such notification and the protocol sufficiently in advance of the intended startup date to satisfy those requirements.
- h. P&K shall provide 30 days' notice of any performance test to both the Department and EPA. If after 30 days' notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, P&K shall notify the Department and EPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Department and EPA by mutual agreement. [40 C.F.R. § 60.8(d)]

6. Reporting

P&K shall submit to EPA all reports required by Subpart ZZZZ including, but not limited to, the following:

- a. Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 C.F.R. § 63.6645(g)]
- b. A Semiannual Compliance Report shall cover the period between January 1 and June 30 or July 1 through December 31 of each year and shall be postmarked by July 31 or January 31, as applicable. The Semiannual Compliance Report shall include the following information:
(1) Company name and address;

- (2) Statement by a responsible official, with the official's name, title, and signature certifying the accuracy of the content of the report;
- (3) Date of report and beginning and ending dates of the reporting period;
- (4) If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction;
- (5) If there are not deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operation limitations during the reporting period;
- (6) If there were no periods during which the continuous monitoring systems (CMS), i.e. CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period; and
- (7) If there were periods of deviation from an emission or operating limitation occurring where the CPMS is used to comply with the emission and operating limitation, the Semiannual Compliance Report shall also include the following information:
 - i. The date and time that each malfunction started and stopped;
 - ii. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;
 - iii. The date and time that each CMS was out-of-control, including the information in § 63.8(c)(8);
 - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
 - v. A summary of the total duration of deviations during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;
 - vi. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, or other known causes, and other unknown causes;
 - vii. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total source operating time during that reporting period;

- viii. An identification of each parameter and pollutant that was monitored;
- ix. A brief description of the CMS;
- x. The date of the last CMS certification or audit;
- xi. A description of any changes in CMS, processes, or controls since the last reporting period; and
- xii. The total operating time of Generators A170 and A247, each, during the reporting period.

[40 C.F.R. § 63.6650 and Table 7]

7. Recordkeeping

P&K shall keep all records required by Subpart ZZZZ including, but not limited to, the following:

- a. A copy of each notification and report that was submitted to comply with Subpart ZZZZ, including all supporting documentation;
- b. Records of the occurrence and duration of each malfunction of the engine, pollution control equipment, or monitoring equipment;
- c. Records of performance tests and performance evaluations;
- d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions taken to restore normal operations;
- e. Monitoring data from the CPMS; and
- f. Records of maintenance conducted on Generators A170 and A247 and control equipment to demonstrate the equipment was operated and maintained according to the maintenance plan.

[40 C.F.R. § 63.6655 and 06-096 C.M.R. ch. 115, BACT]

(19) General Process Sources

Visible emissions from any general process that is not part of a nonmetallic mineral processing plant shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

(20) Fugitive Emissions

- A. P&K shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

B. P&K shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

(21) Performance Test Protocol

For any performance testing required by this license, P&K shall submit to the Department a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 115, BPT]

Note: Although some federal standards, such as 40 C.F.R. Part 60, Subpart OOO, allow for a shorter pretest notification period, the Department requires pretest notification a minimum of 30 days prior to the scheduled date of the performance test unless a variance of this requirement is preapproved by the Department.

(22) Order Availability

P&K shall keep a copy of this Order on site with the licensed equipment and ensure the operator(s) are familiar with the terms of this Order. [06-096 C.M.R. ch. 115, BPT]

P & K Sand and Gravel, Inc.
Cumberland County
Casco, Maine
A-741-71-F-R/A

32

**Departmental
Findings of Fact and Order
Air Emission License
Renewal and
After-the-Fact Amendment**

(23) Additional Information

If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, P&K may be required to submit additional information. Upon written request from the Department, P&K shall provide information necessary to demonstrate ambient air quality standards (AAQS) will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter. [06-096 C.M.R. ch. 115, § 2(O)]

Done and Dated in Augusta, Maine this 22nd day of SEPTEMBER, 2026.

Department of Environmental Protection

BY:


for Melanie Loyzim, Commissioner

The term of this license shall be ten (10) years from the signature date above.

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

Please note attached sheet for guidance on appeal procedures.

Date of initial receipt of application: April 7, 2026

Date of application acceptance: April 9, 2026

This Order prepared by Zac Hicks, Bureau of Air Quality.