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

DEPARTMENT ORDER

Costigan Chip LLC **Penobscot County** **Milford, Maine** **A-671-71-H-R**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Renewal**

FINDINGS OF FACT

After review of the air emission license renewal 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

Costigan Chip LLC (Costigan Chip) has applied to renew their Air Emission License for the operation of emission sources associated with their wood chipping facility.

The equipment addressed in this license is located at 123 Stud Mill Rd, Milford, Maine.

Stationary Engine

Equipment	Max. Input Capacity	Rated Output Capacity	Fuel Type	Firing Rate	Date of Manuf.	Date of Install.
Gen #1	6.84 MMBtu/hr	746 kW or 1,000 HP	Distillate Fuel	49.9 gal/hr	1997	1997

B. 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.

Records or *Logs* mean either hardcopy or electronic records.

C. 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.

The application for Costigan Chip does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

D. Facility Classification

With the annual fuel limit of 50,000 gal/yr of distillate fuel on Gen #1, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because Costigan Chip 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 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. Gen #1

Costigan Chip operates Gen #1 to provide prime operating power to the facility. Gen #1 uses a Caterpillar Model 3508 engine rated with a heat input capacity of 6.84 MMBtu/hr, power output of 1,000 bhp, and fires distillate fuel. Gen #1 was manufactured and installed in 1997.

1. BPT Findings

The BPT emission limits for Gen #1 are based on the following:

$PM/PM_{10}/PM_{2.5}$	–	0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO_2	–	Combustion of distillate fuel with a maximum 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	–	0.85 lb/MMBtu from 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 BPT emission limits for Gen #1 are the following:

Unit	Pollutant	lb/MMBtu
Gen #1	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)
Gen #1	0.82	0.82	0.82	0.01	21.89	1.74	0.62

Visible emissions from Gen #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Costigan Chip 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. Costigan Chip 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.

2. Chapter 169

Gen #1 was installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and is therefore exempt from this rule pursuant to section 1.

3. New Source Performance Standards (NSPS)

   Due to the date of manufacture of the compression ignition engine listed above, Gen #1 is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE),* 40 C.F.R. Part 60, Subpart IIII since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

4. 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 Gen #1. The unit is considered an existing stationary reciprocating internal combustion engine at an area HAP source and is not subject to New Source Performance Standards 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. Operation 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 (Gen #1)	- Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2 or reduce CO emissions 70 percent or more (Table 2d); - Minimize the engine's time spent at idle and minimize the engine's startup time at startup 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 initial or most recent performance test (Table 2b); and - Maintain the temperature of the exhaust so that the catalyst inlet temperature is ≥ 450 °F and ≤ 1,350 °F. (Table 2b)

   b. Ultra-Low Sulfur Diesel Fuel Requirement

      Gen #1 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

Costigan Chip shall operate on Gen #1 an open crankcase filtration emission control system that reduces emissions from the crankcase 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, the facility shall operate and maintain Gen #1, 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) Costigan Chip shall minimize Gen #1's time spent at idle during startup 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 emission standards applicable to all times other than startup in Table 2d to this subpart apply. [40 C.F.R. § 63.6625(h)]

e. Continuous Parameter Monitoring System (CPMS)

1) Costigan Chip shall install, operate, and maintain a CPMS on Gen #1.
2) Costigan Chip shall monitor the catalyst inlet temperature and reduce this data to 4-hour rolling averages to demonstrate compliance with the limitations on the catalyst inlet temperature range.
3) Costigan Chip shall monitor the pressure drop across the catalyst once per month to demonstrate compliance with the operating limit established during the last performance test.
4) Costigan Chip 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 Gen #1 is 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) Costigan Chip was required to conduct an initial performance test in accordance with Table 5 of Subpart ZZZZ. This test was performed on November 18, 2014. [40 C.F.R § 63.6612(a)]

2) Costigan Chip shall perform performance tests every 8,760 hours of operation or 3 years, whichever comes first. (Due to the fuel limit for Gen #1, the 3 years will always come first.) [40 C.F.R. § 63.6640(a), Table 3, and Table 5]
3) Costigan Chip shall conduct three separate test runs for each performance test. Each test run must be at least 1 hour, unless otherwise specified. [40 C.F.R. § 63.6620(d)]
4) During a performance test the facility must establish the pressure drop across the catalyst to be used to demonstrate compliance per the CPMS. [40 C.F.R. § 63.6630(b)]
5) If the facility changes the catalyst, Costigan Chip 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)]
6) If Gen #1 becomes non-operational for a period of time, Costigan Chip 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.
7) Costigan Chip 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, Costigan Chip 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)]

g. Reporting

Costigan Chip shall submit to EPA and the Department 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 of each year and shall be postmarked by July 31 or January 31, as applicable. The Semiannual Compliance Report shall include the following information:

a) Company name and address;
b) Statement by a responsible official, with the official's name, title, and signature certifying the accuracy of the content of the report;
c) Date of report and beginning and ending dates of the reporting period;
d) 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;
e) 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;
f) 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
g) 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 in 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 during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of Gen #1during 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; and

12. The total operating time of Gen #1 during the reporting period.

[40 C.F.R. § 63.6650 and Table 7]

h. Recordkeeping

Costigan Chip 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 documentation;
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 actions 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 Gen #1 and control equipment to demonstrate the equipment was operated and maintained according to the maintenance plan.

[40 C.F.R. § 63.6655]

C. General Process Emissions

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

D. Fugitive Emissions

Costigan Chip 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.

Costigan Chip 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.

E. 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 firing 50,000 gal/year of distillate fuel in Gen #1.

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	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	VOC
Gen #1	0.4	0.4	0.4	-	11.0	0.9	0.3
Total TPY	**0.4**	**0.4**	**0.4**	**0.1***	**11.0**	**0.9**	**0.3**

* Because estimated emissions are small but not zero, this value was rounded 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 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 Costigan Chip 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-671-71-H-R subject to 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 Costigan Chip is due by the end of February 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). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Gen #1**

A. Total fuel use for Gen #1 shall not exceed 50,000 gal/yr of distillate fuel, based on a calendar year total basis. [06-096 C.M.R. ch. 115, BPT]

B. The fuel sulfur content for distillate fuel fired in Gen #1 shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following:

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

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

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)
Gen #1	0.82	0.82	0.82	0.01	21.89	1.74	0.62

E. Visible Emissions

Visible emissions from Gen #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Costigan Chip 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. Costigan Chip 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)]

F. Gen #1 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. Costigan Chip shall meet the following operational limitations for Gen #1:

   a. Limit the concentration of CO in the exhaust to 23 ppmvd at 15% O_2 or reduce CO emissions by 70% or more;
   b. Minimize the engine's time spent at idle and minimize the engine's startup time at startup 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 last performance test; and
   d. Maintain the temperature of the exhaust so that the catalyst inlet temperature is within the range of 450 °F – 1,350 °F on a 4-hour rolling average basis.

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

2. Crankcase Filtration

   Costigan Chip shall operate on Gen #1 an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream 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, Costigan Chip shall operate and maintain Gen #1, 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. Costigan Chip shall minimize Gen #1's time spent at idle during startup 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 emission standards applicable to all times other than startup in Table 2d to this subpart apply. [40 C.F.R. § 63.6625(h)]

4. Continuous Parameter Monitoring System (CPMS)

   a. Costigan Chip shall install, operate, and maintain a CPMS on Gen #1.
   b. Costigan Chip shall monitor the catalyst inlet temperature and reduce this data to 4-hour rolling averages to demonstrate compliance with the limitations on the catalyst inlet temperature range.

c. Costigan Chip shall monitor the pressure drop across the catalyst once per month to demonstrate compliance with the operating limit established during the last performance test.
d. Costigan Chip 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 Gen #1 is 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. Costigan Chip shall perform performance tests every 8,760 hours of operation or 3 years, whichever comes first. (Due to the fuel limit for Gen #1, the 3 years will always come first.) [40 C.F.R. § 63.6640(a), Table 3, and Table 5]
b. Costigan Chip shall conduct three separate test runs for each performance test. Each test run must be at least 1 hour, unless otherwise specified. [40 C.F.R. § 63.6620(d)]
c. During a performance test the facility must establish the pressure drop across the catalyst to be used to demonstrate compliance per the CPMS. [40 C.F.R. § 63.6630(b)]
d. If the facility changes the catalyst, Costigan Chip 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)]
e. If Gen #1 becomes non-operational for a period of time, Costigan Chip 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.

f. Costigan Chip 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, Costigan Chip 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

Costigan Chip shall submit to EPA and the Department 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 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;

(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:

a. The date and time that each malfunction started and stopped;

b. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;

c. The date, time, and duration that each CMS was out-of-control, including in the information in § 63.8(c)(8);
d. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
e. 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;
f. 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;
g. 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 operating time of Gen #1during that reporting period;
h. An identification of each parameter and pollutant that was monitored;
i. A brief description of the CMS;
j. The date of the last CMS certification or audit;
k. A description of any changes in CMS, processes, or controls since the last reporting period; and
l. The total operating time of Gen #1 during the reporting period.

[40 C.F.R. § 63.6650 and Table 7]
[06-096 C.M.R. ch. 115, BPT]

7. Recordkeeping

Costigan Chip 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 Gen #1 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, BPT]

(18) **General Process Sources**

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

(19) **Fugitive Emissions**

A. Costigan Chip 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. Costigan Chip 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)]

(20) **Parameter Monitors**

If any parameter monitor, specifically monitors for the catalyst inlet temperature and for the pressure drop across the catalyst as required in Specific Condition (17)F of this license, is recording accurate and reliable data less than 98% of the source-operating time within any quarter of the calendar year, the Department may initiate enforcement action. The Department may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the Department's satisfaction that the failure of the system to record such data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions. [06-096 C.M.R. ch. 115, BPT]

(21) 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, Costigan Chip may be required to submit additional information. Upon written request from the Department, Costigan Chip shall provide information necessary to demonstrate 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 17th DAY OF SEPTEMBER, 2025.

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: March 4, 2025
Date of application acceptance: March 4, 2025

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