



DEPARTMENT ORDER

**Prime Electric Motors
Cumberland County
Gorham, Maine
A-1089-71-B-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

Prime Electric Motors (Prime) has applied to renew their Air Emission License for the operation of emission sources associated with their electrical apparatus repair shop. Prime has also requested an after-the-fact amendment to the license for Emergency Generator #1, which was replaced in 2020.

The equipment addressed in this license is located at 72 Sanford Dr, Gorham, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Model	Pollution Control PTR 260995
Class Incinerator	V
No. of Chambers	2
Type of Waste	Type 6
Max. Design Combustion Rate (lb/hr)	10 ¹
Auxiliary Fuel Input:	Natural gas
Primary Chamber (MMBtu/hr)	0.29
Secondary Chamber (MMBtu/hr)	0.80
Emission Control	Afterburner

The incinerator combustion gases vent to a 46-foot Above Ground Level (AGL) stack.

¹ Previously listed as 400 lb/hr and has been corrected.

Stationary Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
<i>Emergency Generator #1</i>	3.4	350	<i>Distillate fuel</i>	24.8	1990	2011
Emergency Generator #1	4.4	450	Distillate fuel	32.1	11/1973	2020

Emergency Generator #1 (1973) replaced Emergency Generator #1 (1990) in 2020; therefore, the 1990 unit is being removed from the license.

Prime 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 at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, Prime 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.

Process Equipment

Equipment	Pollutants Generated	Production Rate	Pollution Control Equipment
Varnish Dip Tank	VOC	--	Positive Pressure
Paint Spray Booth	VOC & PM	4 gal/hr	Paper Filter
Bead and Sand Blasters	PM	--	Paper Filter
Wash Tank	Negligible	--	Thermal Control
Small Bake-out Oven	Negligible	--	--
Large Bake-out Oven	Negligible	--	--

C. Insignificant Emissions Units

The following are considered insignificant emissions units under *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115, Appendix B, Section B and are mentioned in this section for completeness purposes only.

Fuel Burning Equipment

Prime has several small heating, ventilation, and air conditioning (HVAC) systems that burn natural gas and a steam cleaner that burns distillate fuel. These are considered insignificant emissions units because they are each rated below 1.0 MMBtu/hr, the heat

input capacity level at or above which would require their inclusion in the license. [06-096 C.M.R. ch. 115, App. B, § B.2]

Parts Washer

Prime operates an aqueous-based parts washer. The cleaning solution contains less than 5% volatile organic compounds (VOC), and it does not meet the definition of solvent cleaning machine; therefore, there are no applicable requirements in *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

VPI Tank

Prime operates a Vacuum Pressure Impregnation (VPI) tank, which is used to impregnate windings with resin. The VPI tank was manufactured in 1993 and installed in 2015. The VPI tank uses a pressure release, which does not exhaust outside. The resin, which is made up of 100% VOC, is contained in an airtight chamber. Prime uses a maximum of 9 gal/yr on a calendar year basis, which results in emissions of less than 100 lb/yr of VOC. In accordance with § B.1 of Ch. 115, this source is considered insignificant. [06-096 C.M.R. ch. 115, App. B, § B.1]

D. 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.

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.

E. 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 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 Emission Levels
PM	0.26	0.2	-0.1	100
PM ₁₀	0.26	0.2	-0.1	100
PM _{2.5}	--	0.2	0.1	100
SO ₂	0.02	0.003	--	100
NO _x	1.21	1.3	0.1	100
CO	0.55	0.6	0.1	100
VOC	2.69	2.6	-0.1	50*

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

This modification is determined to be a minor modification and has been processed as such.

The application for Prime includes both the license renewal for existing equipment and the installation of new equipment. Therefore, the license is considered to be a renewal of currently licensed emission units and an after-the-fact amendment for a minor modification and has been processed through 06-096 C.M.R. ch. 115.

F. Facility Classification

The facility is licensed as follows:

- As a natural minor source of air emissions, because no license restrictions are necessary to keep facility emissions below major source thresholds for criteria pollutants; 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. Process Description

Prime rebuilds and refurbishes electric motors. Motors arriving at the facility are first weighed, then they are steam cleaned and, in some cases, dried in one of the bake-out ovens. If a motor needs to be rewound, which occurs in approximately 10% of the motors, the copper wire coils are removed from the electric motors. The old resin and other contaminants are burned off of the copper coils in the incinerator. The coils are then rewound with new copper, then dipped in a varnish resin dip and placed to cure in a bake-out oven. The majority of the VOC emissions result from xylene used in the resin dip. A small amount is used in painting as a paint thinner.

Parts that are not sent to the incinerator are further cleaned as necessary in the parts washer. Sand and bead blasting are used to clean excessively rusted assemblies. After the motor is reassembled, it is painted and air-dried.

C. Incinerator

Prime operates a Pollution Control Products incinerator, model PTR 260995. The unit was manufactured in 1995 and installed in 2013. This unit is a Class V incinerator, designed for specific byproducts including rubber, plastics, etc. The Incinerator is used to remove the outer wire coatings from the coil windings by heating it to approximately 650-700 °F. To prevent damage to the equipment, the Incinerator is equipped with a water suppression

system which comes on if the primary chamber goes 5 °F over set point. Gases from the primary chamber flow to the afterburner where VOC are combusted.

The Incinerator fires natural gas. The primary chamber burner has a maximum rating of 0.29 MMBtu/hr, and the secondary chamber burner has a maximum rating of 0.80 MMBtu/hr. The design combustion rate is 10 lb/hr. The Incinerator exhausts from its own stack.

BPT for the Incinerator is the following:

1. Emission Limits

The BPT emissions from the natural gas burner portion of the total exhaust were based on the following:

PM/PM ₁₀ /PM _{2.5}	0.05 lb/MMBtu based on 06-096 C.M.R. ch.115, BPT
SO ₂	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO _x	100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
CO	84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
VOC	5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
Visible Emissions	06-096 C.M.R. ch. 115, BPT

Emissions from combustion of the outer wire coatings from the coil windings are considered negligible due to operation of the secondary combustion chamber.

The BPT emission limits for the Incinerator are as follows:

	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)
Incinerator	0.05	0.05	0.05	0.001	0.11	0.09	0.01

Visible emissions from the Incinerator stack shall not exceed 10% opacity on a six-minute block average basis.

2. Operating Parameters

- a. To ensure an efficient burn and to prevent odors and visible emissions, the secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures at least 1,200 °F.
- b. No combustibles shall be introduced into the primary chamber until the temperature in the secondary chamber has reached 1,200 °F.

- c. Once the burn cycle has commenced by introduction of primary chamber combustion, the incinerator shall be operated in an efficient manner, and as specified by the manufacturer, for the period of time between preheat and reaching the set operational temperature to be a minimum of 1,200 °F in the secondary chamber.
- d. A pyrometer and ¼-inch test port shall be installed and maintained at that location of the Incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 0.5 second at a minimum of 1,200 °F.
- e. The Incinerator shall not exceed the unit's maximum design combustion rates. To ensure compliance, a log shall be maintained recording the weight of the charge, preheat time, charging time, and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight charged shall be logged on the chart.
- f. The incinerator operator(s) shall receive adequate training to operate the Incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

D. Emergency Generator #1

Prime operates Emergency Generator #1, which consists of an engine and an electrical generator. Emergency Generator #1 has an engine rated at 4.4 MMBtu/hr and fires distillate fuel. Emergency Generator #1 was manufactured in 1973 and installed in 2020 after-the-fact.

1. BACT Findings

The BACT emission limits for Emergency Generator #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	– 3.2 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96
CO	– 0.85 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96
VOC	– 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96
Visible Emissions	– 06-096 C.M.R. 101

The BACT emission limits for the generator are the following:

Unit	Pollutant	lb/MMBtu
Emergency Generator #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)
Emergency Generator #1	0.53	0.53	0.53	0.01	14.08	3.74	0.40

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

BACT for the emergency generator includes recordkeeping of all maintenance conducted on each engine.

2. Chapter 169

Emergency Generator #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

Due to the date of manufacture of Emergency Generator #1, the engine 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 III since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

Emergency Generator #1 was manufactured in 1973 and installed in 2020. Prime had extensive repairs made to the engine in 2020. Per Subpart IIII, a reconstructed engine is assigned a new date of manufacture if either 1) the fixed capital cost of the new and refurbished components exceeds 75% of the fixed capital cost of a new comparable engine; or 2) the engine is completely rebuilt using all new components except for the engine block. Prime provided the Department a copy of the invoice for the engine repairs, which is dated 7/9/2020. The total cost of the repairs was \$44,656.06, which is less than 75% of the cost of a new, comparable engine. Also, the parts and labor list on the invoice includes charges for repair and reuse of other engine parts in addition to the engine block, thereby showing the engine was not rebuilt with all new components except for the engine block. Therefore, the manufacture date of Emergency Generator #1 is 1973. [40 C.F.R. § 60.4219, definition of “date of manufacture”]

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 the Emergency Generator #1. The unit is considered existing, emergency stationary reciprocating internal combustion engine at an area 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 this unit 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. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 63, Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 63, Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

- (1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Emergency Generator #1 shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause this engine to not be considered an emergency engine and therefore subject to all applicable requirements for non-emergency engines.

b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements

- (i) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (ii) Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
[40 C.F.R. § 63.6603(a) and Table 2(d)]

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or Prime shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program

Prime has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Prime must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R. § 63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must 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. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by

providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping

Prime shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

E. Process Equipment

1. Varnish Dip Tank

Prime utilizes a Varnish Dip Tank as part of their motor refurbishing process. The Varnish Dip Tank is used to seal motor windings to prevent moisture and contaminant penetration. Prime uses a Baking Varnish and xylene-based thinner for this operation. Safety Data Sheets for these chemicals were provided in the application and are in the license file. Prime shall maintain monthly records indicating the amount of varnish and thinner added and used in the Varnish Dip Tank.

2. Paint Spray Booth

Prime paints motor housings upon completion of the motor assembly. The Paint Spray Booth has an exhaust fan that blows through a dry paper filter for particulate control and then vents outside. VOC emissions are calculated using the Safety Data Sheet's VOC content information from paints and thinners. Xylene is the principal VOC component of the paints, varnish dip, and thinners used by Prime.

BPT for the Spray Paint Booth is the following:

- a. Operate the exhaust fan whenever spray application of paint is occurring.
- b. Properly maintain the Paint Spray Booth, including conducting frequent inspections of the blower equipment and the filter pads.
- c. Immediately clean up any spilled or excess coating material.
- d. Visible emissions from the Paint Spray Booth shall not exceed 10% on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
- e. Keep a written log documenting all maintenance performed on the Paint Spray Booth and filters.

3. VOC Emissions from Coating Operations (Varnish Dip Tank and Spray Paint Booth)

The painting and coating in the dipping process conducted by Prime is subject to 06-096 C.M.R. ch. 129 *Surface Coating Facilities* as surface coating of miscellaneous metal parts and products [06-096 C.M.R. ch. 129 1(A)(6)].

a. Emission Limitations

According to Section 1(C)(2), if the total actual VOC emissions from the coating operations is equal to or greater 2.7 tpy on a 12-month rolling period, the facility shall comply with the applicable emission limitations under Section 4. Prime is subject to an emission limit of 2.6 tpy of VOC on a 12-month rolling period from painting and coating in the dipping process. Therefore, Prime is not subject to the emission limitations under Section 4. [06-096 C.M.R. ch. 129 1(C)(2)]

b. Handling, Storage, and Disposal of Materials Containing VOC

Prime shall comply with the following requirements:

- (1) Vapor-tight containers shall be used for the storage of spent or fresh VOC and for the storage or disposal of cloth or paper impregnated with VOC that are used for surface preparation, clean up or coating removal.
- (2) The use of VOC is prohibited for cleanup operations unless equipment is used to collect the cleaning compounds and to minimize their evaporation to the atmosphere. The owner or operator of a surface coating unit, line, or operation subject to this chapter shall comply with the following work practice standards:
 - a) The coating operator(s) shall collect all organic solvent used to clean spray guns into a normally closed container.
 - b) The coating operator(s) shall pump or drain all organic solvent used for line cleaning into a normally closed container.
 - c) The coating operator(s) shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyers, continuous coaters, and their enclosures, and/or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the affected source may not use more than 1.0 gallon of organic solvent to prepare the booth prior to applying the booth coating.

- d) The coating operator(s) shall control emissions from wash off operations by:
- Using normally closed tanks for wash-off; and
 - Minimizing dripping by tilting or rotating the part to drain as much organic solvent as possible.

[06-096 C.M.R. ch. 129 5(A) and (B)]

c. Recordkeeping Procedures

Monthly records shall be maintained on premises to document the name and identification of each coating and the mass of VOC per volume of each coating, excluding water and exempt compounds, as applied, used on each coating unit, line or operation, and the total emissions of the Coating Operations.

[06-096 C.M.R. ch. 129 7(B)]

4. Bead and Sand Blasting

- a. Prime uses a sand blasting and a bead blasting cabinet to clean some of their parts and materials. The residue from these units is controlled by an exhaust fan that blows through a dry paper filter for particulate control and then vents outside. The blasting cabinet exhaust system shall be operated when sand or bead blasting is occurring.
- b. A written log of all maintenance done on the bead and sand blasting units and dust collectors shall be kept.
- c. Visible emissions from each sand or bead blasting unit stack shall not exceed 10% opacity on a six-minute average. [06-096 C.M.R. ch. 115, BPT]

F. Bake-out Ovens

Prime operates two bake-out ovens, a small bake-out oven and large bake-out oven, for drying and curing motor parts. Prime historically operates both units at no more than 500 hours per year total, and never simultaneously. Emissions from the bake-out ovens are expected to be minimal but are not readily quantifiable. Visible emissions from the bake-out ovens shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

G. Fugitive Emissions

Prime 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.

Prime 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.

H. General Process Emissions

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, § 3(B)(4)]

I. 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 the following assumptions:

- Operating the Incinerator for 8,760 hr/yr;
- Operating Emergency Generator #1 for 100 hr/yr; and
- A VOC emissions limit of 2.6 tpy from process sources using coating, paints, varnish dips, and thinners.

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
Incinerator	0.2	0.2	0.2	--	0.5	0.4	--
Emergency Generator #1	--	--	--	--	0.7	0.2	--
Process Equipment	--	--	--	--	--	--	2.6
Total TPY	0.2	0.2	0.2	--	1.2	0.6	2.6

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

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 renewal and amendment.

This determination is based on information provided by the applicant regarding the operation of the proposed emission unit and the 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 Prime 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 Renewal and Amendment A-1089-71-B-R/A 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]
- (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) **Incinerator**

A. The Incinerator is licensed to fire natural gas.

B. The Incinerator shall be used to remove the outer wire coatings from coil windings as described in this license and application materials. [06-096 C.M.R. ch. 115, BPT]

C. Emissions for the Incinerator shall not exceed the following:

Pollutant	lb/hr
PM	0.05
PM ₁₀	0.05
PM _{2.5}	0.05
SO ₂	0.001
NO _x	0.11
CO	0.09
VOC	0.01

Compliance shall be demonstrated through stack testing by request of the Department, in accordance with the appropriate method found in 40 C.F.R. Part 60, Appendix A. [06-096 C.M.R. ch. 115, BPT]

- D. Visible emissions from the stack of the Incinerator shall not exceed 10% on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
- E. To ensure an efficient burn and to prevent odors and visible emissions, the secondary chamber of the Incinerator shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures at least 1,200 °F. [06-096 C.M.R. ch. 115, BPT]
- F. No combustibles shall be introduced into the primary chamber of the Incinerator until the temperature in the secondary chamber has reached 1,200 °F. [06-096 C.M.R. ch. 115 BPT]
- G. Once the burn cycle has commenced by introduction of primary chamber combustion, the Incinerator shall be operated in an efficient manner, and as specified by the manufacturer, for the period of time between preheat and reaching the set operational temperature to be a minimum of 1,200 °F in the secondary chamber. The temperature in the secondary chamber shall be maintained at a minimum of 1,200 °F for the duration of the burn cycle. [06-096 C.M.R. ch. 115, BPT]
- H. A pyrometer and ¼-inch test port shall be installed and maintained at that location of the Incinerator or refractory lined stack which provides sufficient volume to ensure a flue gas retention time of not less than 1.0 second at a minimum of 1,200 °F. [06-096 C.M.R. ch. 115, BPT]
- I. The Incinerator shall not exceed the unit's maximum design combustion rates. To ensure compliance, a log shall be maintained for the Incinerator recording the weight of the charge, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For

facilities operating a chart recorder, the start time, date, and weight charged shall be logged on the chart. [06-096 C.M.R. ch. 115, BPT]

- J. The incinerator operator(s) shall receive adequate training to operate the Incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License. [06-096 C.M.R. ch. 115, BPT]

(18) **Emergency Generator #1**

- A. Prime shall keep records of all maintenance conducted on the engine associated with Emergency Generator #1. [06-096 C.M.R. ch. 115, BACT]

- B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Emergency Generator #1	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)
Emergency Generator #1	0.59	0.59	0.59	0.01	15.68	4.17	0.44

- D. Visible Emissions

Visible emissions from Emergency Generator #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Prime Visible emissions from the emergency generator shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Prime 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. Prime 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. Emergency Generator #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, BACT]

1. Prime shall meet the following operational limitations for the of the compression ignition emergency engine:
 - a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

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

2. Oil Analysis Program Option

Prime has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Prime must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6625(i)]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

- a. As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise to supply power as part of a financial arrangement with another entity). These limits are based on a calendar

year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 115]

- b. Prime shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]

5. Operation and Maintenance

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or Prime shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

Prime shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

6. Startup Idle and Startup Time Minimization

During periods of startup, the facility must 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. [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(19) **Process Equipment**

- A. Prime shall maintain monthly records indicating the amount of varnish and thinner added and used in the Varnish Dip Tank.
- B. BPT for the Paint Spray Booth is the following:
 1. Operate the exhaust fan whenever spray application of paint is occurring.
 2. Properly maintain the Paint Spray Booth, including conducting frequent inspections of the blower equipment and the filter pads.
 3. Immediately clean up any spilled or excess coating material.

4. Visible emissions from the Paint Spray Booth shall not exceed 10% on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
 5. Keep a written log documenting all maintenance performed on the Paint Spray Booth and filters.
- C. VOC Emissions from Coating Operations (Varnish Dip Tank and Spray Paint Booth)

1. Handling, Storage, and Disposal of Materials Containing VOC

Prime shall comply with the following requirements:

- a. Vapor-tight containers shall be used for the storage of spent or fresh VOC and for the storage or disposal of cloth or paper impregnated with VOC that are used for surface preparation, clean up or coating removal.
- b. The use of VOC is prohibited for cleanup operations unless equipment is used to collect the cleaning compounds and to minimize their evaporation to the atmosphere. The owner or operator of a surface coating unit, line, or operation subject to this chapter shall comply with the following work practice standards:
 - (1) The coating operator(s) shall collect all organic solvent used to clean spray guns into a normally closed container.
 - (2) The coating operator(s) shall pump or drain all organic solvent used for line cleaning into a normally closed container.
 - (3) The coating operator(s) shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyers, continuous coaters and their enclosures, and/or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the affected source may not use more than 1.0 gallon of organic solvent to prepare the booth prior to applying the booth coating.
 - (4) The coating operator(s) shall control emissions from wash off operations by:
 - Using normally closed tanks for wash off; and
 - Minimizing dripping by tilting or rotating the part to drain as much organic solvent as possible.

[06-096 C.M.R. ch. 129 5(A) and (B)]

2. Recordkeeping Procedures

Monthly records shall be maintained on premises to document the name and identification of each coating and the mass of VOC per volume of each coating, excluding water and exempt compounds, as applied, used on each coating unit, line, or operation, and the total emissions of the Coating Operations.
[06-096 C.M.R. ch. 129 7(B)]

D. Bead and Sand Blasting

1. Residue from Bead and Sand Blasting shall be controlled by an exhaust fan that blows through a dry paper filter for particulate control and then vents outside. The blasting cabinet exhaust system shall be operated when sand or bead blasting is occurring.
2. A written log of all maintenance done on the sand or bead blasting units and dust collectors shall be kept.
3. Visible emissions from each sand or bead blasting unit stack shall not exceed 10% opacity on a six-minute average. [06-096 C.M.R. ch. 115, BPT]

(20) **Bake-out Ovens**

Visible emissions from the bake-out ovens shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

(21) **Fugitive Emissions**

1. Prime 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.
2. Prime 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)]

(22) **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, § 3(B)(4)]

- (23) 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, Prime may be required to submit additional information. Upon written request from the Department, Prime 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 2nd DAY OF JANUARY, 2024.

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: October 13, 2023

Date of application acceptance: October 18, 2023

Date filed with the Board of Environmental Protection:

This Order prepared by Kendra Nash, Bureau of Air Quality.

