

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

DEPARTMENT ORDER

Oldcastle Lawn & Garden, Inc. d/b/a/ Jolly Gardener Products, Inc. Androscoggin County Poland Spring, Maine A-964-71-H-A Departmental
Findings of Fact and Order
Air Emission License
Amendment # 4

FINDINGS OF FACT

After review of the air emission license 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

Oldcastle Lawn and Garden, Inc. d/b/a Jolly Gardener Products, Inc. (Jolly Gardener Products) was issued Air Emission License A-964-71-D-R on March 3, 2014, for the operation of emission sources associated with their garden mulch and amended soils manufacturing facility. The license was subsequently amended on May 11, 2017 (A-964-71-E-A), August 31, 2018 (A-964-71-F-A), and May 8, 2020 (A-964-71-G-A).

Jolly Gardener Products has requested an amendment to their license in order to install an Edge 622 Trommel Screen and a Komptech MultiStar XL3 Screen and associated engines. The amendment also includes the removal of the Prentice Log Loader and the Warrior 1800 Screen and their associated engines. Associated engines on process equipment are all trailer mounted and portable.

The equipment addressed in this license amendment is located at 481 Springwater Road, Poland Spring, Maine.

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B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Engines (Associated engines on process equipment are all trailer mounted and portable.)

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Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Edge 622 Screen Engine	1.26	129.4 kW	Distillate fuel, 0.0015%	9.2	2019	2021
Komptech Screen Engine	1.07	110 kW	Distillate fuel, 0.0015%	7.8	2014	2021
*Edge Feeder Track Stacker Engine	0.52	55 kW	Distillate fuel, 0.0015%	3.8	2021	2021
EQUIPMENT TO BE REMOVED						
Prentice Log Loader Engine	1.2	155 hp	Distillate fuel, 0.0015%	9	2005	2005
Warrior 1800 Screen Engine	0.7	94 hp	Distillate fuel, 0.0015%	4.8	Post- 2006	Post- 2006

^{*} The Edge Feeder Track Stacker is considered insignificant because it is a self-propelled unit which shall be utilized in different areas of the site. It is listed here for completeness purposes only.

Process Equipment

	Maximum Raw Material
Equipment	Process Rate
Edge 622 Trommel Screen	400 cubic yards per hour
Komptech MultiStar XL3 Screen	385 cubic yards per hour

Jolly Gardener Products 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

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Additionally, Jolly Gardener Products may operate <u>portable</u> 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.

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C. Definitions

<u>Distillate Fuel</u> 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.

<u>Portable or Non-Road Engine</u> 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 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 <u>not</u> 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.

D. Application Classification

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

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100.

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The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

	Current License	Future License	Net Change	Significant
Pollutant	(TPY)	(TPY)	(TPY)	Emission Levels
PM	4.2	3.6	-0.6	100
PM_{10}	4.2	3.6	-0.6	100
SO_2	0.1	0.1	0.0	100
NO_x	45.2	39.6	-5.6	100
CO	16.2	18.8	+2.6	100
VOC	3.6	3.2	-0.4	50

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

E. Facility Classification

With the annual operating limits on the engines, the facility is licensed as follows:

- · As a synthetic minor source of air emissions, because Jolly Gardener Products is subject to license restrictions that 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.

B. New Equipment

Jolly Gardener Products has proposed the installation of an Edge 622 Trommel Screen capable of processing 400 cubic yards per hour and a Komptech MultiStar XL3 Screen

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capable of processing 385 cubic yards per hour. The Edge 622 Screen was manufactured in 2019 and is powered with a Tier 4 C4.4 Caterpillar engine (serial number JKT12779). The Komptech MultiStar XL3 Screen was manufactured in 2014 and is powered with a Tier 3 C4.4 Caterpillar engine (serial number J237713Y). Both the Prentice Log Loader and the Warrior 1800 Screen and associated engines are to be removed prior to the installation of the new units. To ensure the additional emissions from the new units do not result in annual emission totals above the modeling threshold levels, Jolly Gardener Products has proposed to limit the operation of the Edge 622 Screen Engine and the Komptech Screen Engines to 3,200 hours per year, each. Jolly Gardener Products shall continue to limit the operation of the Hogzilla Grinder Engine and the CBI AirMax Screen Engine to 1,500 hours per year, each. The CEC Screen Engine, Phoenix 330 Screen Engine, ExtecRobotrac Engine, and Rotochopper Engine will each continue to be restricted to 3,200 operating hours per year.

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C. Edge 622 Screen Engine and Komptech Screen Engine

Jolly Gardener Products plans to install and operate the Edge 622 Trommel Screen (Edge 622 Screen) and the Komptech MultiStar XL3 Screen (Komptech Screen) and associated engines. The Edge 622 Screen Engine was manufactured in 2019 and is rated at 1.3 MMBtu/hr; the Komptech Screen Engine was manufactured in 2014 and is rated at 1.1 MMBtu/hr. Both engines fire distillate fuel. BACT emission limits for the two engines were based on the following:

1. Edge 622 Screen Engine

PM/PM₁₀ - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT

SO₂ - combustion of distillate fuel with a maximum sulfur content not

to exceed 15 ppm (0.0015% sulfur by weight)

NO_x - 0.40 g/kW-hr – Tier 4 Emission Standards CO - 5 g/kW-hr – Tier 4 Emission Standards VOC - 0.19 g/kW-hr – Tier 4 Emission Standards

Visible - 06-096 C.M.R. ch. 115, BACT

Emissions

2. Komptech Screen Engine

PM/PM₁₀ - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT

SO₂ - combustion of distillate fuel with a maximum sulfur content not

to exceed 15 ppm (0.0015% sulfur by weight)

NO_x - 4.0 g/kW-hr - Tier 3 Emission Standards for NO_x + NMHC

(calculated as NOx)

CO - 5 g/kW-hr – Tier 3 Emission Standards

VOC - 0.35 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96

Visible - 06-096 C.M.R. ch. 101

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The BACT emission limits for the Edge 622 Screen Engine and Komptech Screen Engine are as follows:

	PM	PM_{10}	SO ₂	NO _x	CO	VOC
<u>Unit</u>	<u>(lb/hr)</u>	(lb/hr)	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>
Edge 622 Screen Engine (1.3 MMBtu/hr), Distillate fuel	0.15	0.15	0.01	0.11	1.43	0.05
Komptech Screen Engine (1.1 MMBtu/hr), Distillate fuel	0.13	0.13	0.01	0.97	1.21	0.37

Visible emissions from the Edge 622 Screen Engine and the Komptech Screen Engine each shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Jolly Gardener Products may elect to comply with the following work practice standards in lieu of the numerical visible emissions standard.

- a. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
- b. Operate the Edge 622 Screen Engine and the Komptech Screen Engine in accordance with the manufacturer's emission-related operating instructions.
- c. Minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
- d. At all times, operate the Edge 622 Screen Engine and the Komptech Screen Engine and any associated air pollution control equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

3. 40 C.F.R. Part 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is not applicable to the engines listed above since the units are portable, characterizing them as non-road mobile units.

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Subpart IIII applies to stationary internal combustion (ICE) engines defined as follows:

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 C.F.R. § 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Although the Edge 622 and Komptech Screen Engines are portable units which classifies them as non-road mobile engines and are exempt from Subpart IIII, the units are required to meet the following Subpart IIII requirements.

- a. The Edge 622 Screen Engine and Komptech Screen Engine shall be operated and maintained in accordance with the manufacturer's written instructions. Jolly Gardener Products shall not change settings that are not approved in writing by the manufacturer. [06-096 C.M.R. ch. 115, BACT]
- b. The Edge 622 Screen Engine and the Komptech Screen Engine are subject to PM, CO, and (NO_x + VOC) for Tier 3 and PM, CO, NO_x and VOC for Tier 4 emission requirements, respectively, set forth in 40 C.F.R. 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that each engine class meets the appropriate Tier standards.

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

D. 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. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included. Maximum potential emissions were calculated based on the following assumptions:

- The Hogzilla Grinder Engine and the CBI AirMax Screen Engine each operating 1,500 hours per year;
- CEC Screen Engine, Phoenix 330 Screen Engine, ExtecRobotrac Screen Engine, Rotochopper Grinder Engine, Edge 622 Screen Engine, and the Komptech Screen Engine each operating 3,200 hours per year.

Please note, this information provides the basis for fee calculation <u>only</u> and should not be construed to represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of the facility's air emission license.

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Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	<u>PM</u>	<u>PM₁₀</u>	$\underline{SO_2}$	NO _x	<u>CO</u>	<u>voc</u>
Hogzilla Grinder Engine	0.6	0.6	0.01	8.4	1.4	0.4
CEC Screen Engine	0.4	0.4	0.01	5.6	1.2	0.5
Phoenix 3300 Screen Engine	0.5	0.5	0.01	7.1	1.5	0.6
CBI AirMax Screen Engine	0.3	0.3	0.01	3.2	0.7	0.1
Extec Robotrac	0.1	0.1	0.01	4.7	1.0	0.4
Rotochopper Grinder Engine	1.3	1.3	0.02	8.8	8.8	0.5
Edge 622 Screen Engine	0.2	0.2	0.01	0.2	2.3	0.1
Komptech Screen Engine	0.2	0.2	0.01	1.6	1.9	0.6
Total TPY	3.6	3.6	0.09	39.6	18.8	3.2

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		
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 amendment.

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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 Amendment A-964-71-H-A subject to the conditions found in Air Emission License A-964-71-D-R, in amendments A-964-71-E-A, A-964-71-F-A, and A-964-71-G-A, and the following conditions.

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

SPECIFIC CONDITIONS

The following condition replaces Specific Condition (16) A. in A-964-71-D-R (3/3/2014), A-964-71-E-A (05/11/2017), A-964-71-F-A (8/31/2018), and A-964-71-G-A (5/8/2020):

(16) Engines

A. Jolly Gardener Products shall limit the Hogzilla Grinder Engine and the CBI AirMax Screen Engine to 1,500 hr/yr of operation each, based on a 12-month rolling total.

The CEC Screen Engine, Phoenix 3300 Screen Engine, Extec Robotrac Engine, Rotochopper Grinder Engine, Edge 622 Screen Engine, and the Komptech Screen Engine shall each be limited to 3,200 hours/year of operation based on a 12-month rolling total.

An hour meter shall be maintained and operated on each Jolly Gardener Products engine. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [06-096 C.M.R. 115, BPT]

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The following shall be added to Specific Condition (16) in A-964-71-D-R (3/3/2014), A-964-71-E-A (5/11/2017), A-964-71-F-A ((8/31/2018), and A-964-71-G-A (5/8/2020):

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- J. Edge 622 Screen Engine and Komptech Screen Engine
 - 1. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Edge 622 Screen Engine	0.15	0.15	0.01	0.11	1.43	0.05
Komptech Screen Engine	0.13	0.13	0.01	0.97	1.21	0.37

2. Visible Emissions

Visible emissions from the Edge 622 Screen Engine and Komptech Screen Engine shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Jolly Gardener Products may elect to comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 115, BACT]

- a. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
- b. Operate the Edge 622 Screen Engine and the Komptech Screen Engine in accordance with the manufacturer's emission-related operating instructions.
- c. Minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
- d. At all times, operate the Edge 622 Screen Engine and the Komptech Screen Engine and any associated air pollution control equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

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3. Edge 622 Screen Engine and Komptech Screen Engine

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- a. The Edge 622 Screen Engine and Komptech Screen Engine shall be operated and maintained in accordance with the manufacturer's written instructions. Jolly Gardener Products shall not change settings that are not approved in writing by the manufacturer. [06-096 C.M.R. ch. 115, BACT]
- b. The Edge 622 Screen Engine and Komptech Screen Engine are subject to PM, CO, and (NO_x + VOC) for Tier 3 and PM, CO, NO_x and VOC for Tier 4 emission requirements, respectively, set forth in 40 C.F.R. 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that each engine class meets the appropriate Tier standards. [06-096 C.M.R. ch. 115, BACT]

for

Done and dated in Augusta, maine this 20^{th} day of AUGUST, 2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-964-71-D-R (3/3/2014).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 25, 2021
Date of application acceptance: May 28, 2021

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

FILED

AUG 20, 2021

State of Maine Board of Environmental Protection