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-G-A**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Amendment #3**

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) and on August 31, 2018 (A-964-71-F-A).

Jolly Gardener Products has requested an amendment to their license in order to replace their existing CBI Grinder and associated engine with a Rotochopper Grinder and associated engine.

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

B. Emission Equipment

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

Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
CBI Grinder Engine (to be removed)	7.0	725	Distillate fuel, 0.0015%	51	1999	2017
Rotochopper Grinder Engine (new)	6.51	708	Distillate fuel, 0.0015%	47.5	2019	2020

Process Equipment

Equipment	Maximum Raw Material Process Rate	Maximum Finished Material Process Rate
CBI Grinder (to be removed)	135 tons per hour	1,182,600 tons/year
Rotochopper Grinder (new)	135 tons per hour	1,182,600 tons/year

C. Definitions

Distillate Fuel means the following:

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

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.

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. To minimize overall emissions increases from the installation of the Rotochopper Grinder and its engine, the CBI Grinder and its engine are being removed and the restrictions of operation hours on the existing equipment shall remain in place. The new Rotochopper Grinder unit will be restricted to 3,200 hours of operation per year.

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	3.5	4.2	0.7	100
PM_{10}	3.5	4.2	0.7	100
SO_2	0.1	0.1	0	100
NO_x	46.2	45.2	-1.0	100
CO	9.1	16.2	7.1	100
VOC	3.6	3.6	0	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 a Rotochopper Grinder capable of processing 135 tons per hour. The Rotochopper Grinder was manufactured in 2019. The Rotochopper Grinder is powered with a C27 Caterpillar engine (serial number AT400659). The Rotochopper Grinder and its associated engine are self-propelled. As part of this project, the CBI Grinder unit will be removed prior to the installation of the Rotochopper Grinder unit. To ensure the additional emissions from this unit do not result in annual emission totals above the modeling threshold levels, Jolly Gardener Products has proposed to limit the operation of the Rotochopper Grinder Engine to 3,200 hours per year. Jolly Gardener Products will continue to limit the operation of the Hogzilla Grinder Engine and the CBI AirMax Screen Engine to 1,500 hours per year. The Prentice Log Loader Engine, CEC Screen Engine, Phoenix 330 Screen Engine and the Warrior 1800 Screen Engine will each continue to be restricted to 3,200 operating hours per year.

C. Rotochopper Grinder and Engine

Jolly Gardener Products plans to install and operate a Rotochopper Grinder and associated 560 kW C27 Caterpillar engine. The unit is self-propelled, therefore it is considered a non-road mobile unit. The engine, manufactured in 2019, is rated at 6.52 MMBtu/hr and fires distillate fuel.

1. BACT

The BACT emission limits for the Rotochopper Grinder Engine are based on the following:

PM/PM_{10}	- 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	- 3.5 g/kW-hr per Tier 4 standard
CO	- 3.5 g/kW-hr per Tier 4 standard
VOC	- 0.19 g/kW-hr per Tier 4 standard
Opacity	- 06-096 C.M.R. ch. 101

The BACT emission limits for the Rotochopper Grinder Engine are the following:

Unit	Pollutant	lb/MMBtu
Rotochopper Grinder Engine	PM	0.12

The BACT emission limits for the Rotochopper Grinder Engine are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Rotochopper Grinder Engine	0.78	0.78	0.01	5.47	5.47	0.30

Visible emissions from the Rotochopper Grinder Engine 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 Rotochopper Grinder Engines in accordance with the manufacturer's emission-related operating instructions.

c. Minimize the engine'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 non-startup emission limitations shall apply.

d. Operate the Rotochopper Grinder Engine including any associated air pollution control equipment, at all times 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.

2. 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 engine listed above since the unit is a self-propelled, characterizing it as a non-road mobile unit.

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.

The Rotochopper Grinder and its associated engine is a self-propelled unit which classifies it as a non-road mobile engine and is exempt from Subpart IIII.

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;
- The Prentice Log Loader Engine, CEC Screen Engine, Phoenix 330 Screen Engine, Warrior 1800 Screen Engine, ExtecRobotrac Screener Engine, and Rotochopper Grinder Engine each operating 3,200 hours per year.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**
Hogzilla Grinder Engine	0.6	0.6	0.01	8.4	1.4	0.4
Prentice Log Loader Engine	0.6	0.6	0.01	2.5	0.5	0.7
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
Warrior 1800 Screen Engine	0.4	0.4	0.01	4.9	1.1	0.4
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
Total TPY	**4.2**	**4.2**	**0.1**	**45.2**	**16.2**	**3.6**

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
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.

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

Severability. 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), in A-964-71-E-A (05/11/2017), and in A-964-71-F-A (8/31/2018):

(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 Prentice Log Loader Engine, CEC Screen Engine, Phoenix 3300 Screen Engine, Warrior 1800 Screen Engine, Extec Robotrac Engine, and Rotochopper Grinder 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]

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), and A-964-71-F-A ((8/31/2018):

I. Rotochopper Grinder Engine

1. Emissions shall not exceed the following [06-096 C.M.R.115, BACT]

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Rotochopper Grinder Engine	PM	0.12	06-096 C.M.R. ch. 115, BACT

2. 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)
Rotochopper Grinder Engine	0.78	0.78	0.01	5.47	5.47	0.30

3. Visible Emissions

Visible emissions from the Rotochopper Grinder Engine 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.
[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 Rotochopper Grinder Engine in accordance with the manufacturer's emission-related operating instructions.

c. Minimize the engine'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 non-startup emission limitations shall apply.

d. Operate the Rotochopper Grinder Engine, including any associated air pollution control equipment, at all times 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.

DONE AND DATED IN AUGUSTA, MAINE THIS 8th DAY OF MAY, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____ for _____
GERALD D. REID, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-964-71-D-R (3/3/2024).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/23/2020
Date of application acceptance: 3/24/2020
Date filed with the Board of Environmental Protection:

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

FILED

MAY 8, 2020

State of Maine
Board of Environmental Protection