



DEPARTMENT ORDER

**Oldcastle Lawn & Garden, Inc.
d/b/a Jolly Gardener Products, Inc.
Androscoggin County
Poland Spring, Maine
A-964-71-E-A (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

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 & 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.

Jolly Gardener Products has requested an amendment to their license in order to install a new screening unit 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:

Generator Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Firing Rate (gal/hr)	Fuel Type, % sulfur	Manufactured Date	Installation Date
New- CBI AirMax Screen Engine	2.6	19.1	Distillate, 0.0015%	1999	2017
CBI Grinder Engine	7.0	51	Distillate, 0.0015%	2001	2001
Hogzilla Grinder Engine	6.2	45	Distillate, 0.0015%	2004	2007
Prentice Log Loader Engine	1.2	9	Distillate, 0.0015%	2005	2005
CBI Pre-Screener Engine	1.1	8.0	Distillate, 0.0015%	Pre-2006	2009/2010
CEC Screen Engine	0.8	6	Distillate, 0.0015%	2003	2003
Phoenix 3300 Screen Engine	1.0	7.5	Distillate, 0.0015%	Post-2006	Post-2006
Warrior 1800 Screen Engine	0.7	4.8	Distillate, 0.0015%	Post-2006	Post-2006

C. Definitions

Distillate Fuel. For the purposes of this license, *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.

D. Application Classification

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

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 the emissions impact of the new equipment, Jolly Gardener Products proposed additional annual operating hour restrictions on the CBI Grinder Engine, Hogzilla Grinder Engine, and the CBI AirMax Screen Engine. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Significant Emission Levels</u>
PM	5.0	4.0	-1.0	100
PM ₁₀	5.0	4.0	-1.0	100
SO ₂	0.1	0.03	-0.07	100
NO _x	66.6	49.3	-17.3	100
CO	12.5	9.8	-2.7	100
VOC	4.7	3.8	-0.9	50
CO ₂ e	<100,000	<100,000	<100,000	100,000

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

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 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 382 hp distillate fired Portable Caterpillar Engine to power a Continental Biomass Industries (CBI) AirMax Material Separator (Screen). The engine is classified as a portable compression ignition engine. The additional emissions from this unit would have resulted in annual emission totals above the modeling thresholds; therefore, Jolly Gardener Products has proposed limiting the operation of the CBI Grinder Engine, Hogzilla Grinder Engine, and the CBI AirMax Screen Engine each to 1,500 hours per year. The CBI Pre-Screener Engine, the Prentice Log Loader Engine, CEC Screen Engine, Phoenix 3300 Screen Engine and the Warrior 1800 Screen Engine will each continue to be restricted to 3,200 operating hours per year.

C. CBI AirMax Screen Engine

Jolly Gardener Products operates a CBI AirMax material separator and associated portable 382 HP Caterpillar Engine. The engine is rated at 2.62 MMBtu/hr and fires distillate fuel. The engine was manufactured in 1999.

1. New Source Performance Standards (NSPS)

Due to the date of manufacture of the compression ignition engine listed above, 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 IIII since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

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

The applicability of 40 C.F.R. Part 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* to engines at the Jolly Gardener Products facility manufactured prior 2006 was reviewed during the development of license A-964-71-C-A (issued June 14, 2012).

40 C.F.R. Part 63, Subpart ZZZZ is applicable to stationary reciprocating internal combustion engines (RICE) per § 63.6585(a): “a stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 C.F.R 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.”

The definition of non-road engine in 40 C.F.R. Part 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: (1)(iii) "By itself or on a piece of equipment, it 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." 40 C.F.R. Part 1068.30 further states that an engine is not a non-road engine if: (2)(iii) "The engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location 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 (or engines) that replace 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 located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. See § 1068.31 for provisions that apply if the engine is removed from the location."

On December 5, 2008, the U.S. Environmental Protection Agency's (EPA) George T. Czerniak, Chief of the Air Enforcement and Compliance Assurance Branch, sent an applicability determination to the Minnesota Pollution Control Agency regarding a RICE unit at the Hibbing Taconite Company's Hibbing, Minnesota facility. The generator was used to move electric rope shovels, electric power drills, and the electrically powered tailings basin dragline around the mine. In the permit application, the Hibbing Taconite Company asserted that the engine qualifies as a non-road engine, because the generator is regularly moved throughout the facility, approximately once every seven days. EPA's applicability determination stated that the diesel engine used at the Hibbing Taconite Company is not subject to the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since: "the engine is regularly moved through the facility. The engine is not stationary at one location for a period of more than 12 month. In fact, the engine is moved at least once every seven days. Therefore, the Hibbing Taconite Company's diesel engine is classified as a non-road engine."

Based on EPA's applicability determination for the Minnesota facility, the conclusion is that the CBI AirMax Screen Engine at the Jolly Gardener Products facility is not subject to 40 C.F.R. Part 63, Subpart ZZZZ since it is portable and is moved to various locations within the facility over the course of a year.

3. BACT Findings

The BACT emission limits for the CBI AirMax Screen Engine are based on the following:

- 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 - 4.29 lb/hr from vendor data
- CO - 0.95 lb/hr from vendor data
- VOC - 0.17 lb/hr from vendor data
- Visible Emissions - 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the generator is the following:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
CBI AirMax Screen Engine (2.62 MMBtu/hr) Distillate fuel	0.31	0.31	0.01	4.29	0.95	0.17

Visible emissions from the CBI AirMax Screen Engine shall not exceed 20% opacity on a six-minute block average basis.

D. Annual Emissions

1. Total Annual Emissions

Jolly Gardener Products shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the CBI Grinder Engine, the Hogzilla Grinder Engine, and the CBI AirMax Screen Engines each operating 1,500 hours per year and the Prentice Log Loader Engine, CBI Pre-Screener Engine, CEC Screen Engine, the Phoenix 3300 Screen Engine and the Warrior 1800 Screen 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	PM₁₀	SO₂	NO_x	CO	VOC
CBI Grinder Engine	0.6	0.6	0.01	9.8	1.7	0.5
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
CBI Pre-Screener Engine	0.6	0.6	0.01	7.8	1.7	0.6
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
Total TPY	4.0	4.0	0.1	49.3	9.8	3.8

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.

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-E-A subject to the conditions found in Air Emission License A-964-71-71-D-R 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 condition (16) A. in A-964-71-D-R (3/3/2014):

(16) Engines

- A. Jolly Gardener Products shall limit the CBI Grinder Engine, 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, CBI Pre-Screener Engine, CEC Screen Engine, Phoenix 3300 Screen Engine and the Warrior 1800 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 CMR 115, BPT]

Oldcastle Lawn & Garden, Inc.
d/b/a Jolly Gardener Products, Inc.
Androscoggin County
Poland Spring, Maine
A-964-71-E-A (SM)

Departmental
Findings of Fact and Order
Air Emission License
Amendment #1

9

The following shall be added to Condition (16) in A-964-71-D-R (3/3/2014):

G. CBI AirMax Screen Engine

1. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
CBI AirMax Screen Engine	0.31	0.31	0.01	4.29	0.95	0.17

2. Visible emissions from the CBI AirMax Screen Engine shall not exceed 20% opacity on a six (6) minute block average basis. [06-096 C.M.R ch. 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 11 DAY OF May, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Paul Mercer
PAUL MERCER, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 10, 2017

Date of application acceptance: April 13, 2017

Date filed with the Board of Environmental Protection:

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

