



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

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COMMISSIONER

Johnson Outdoors Watercraft, Inc.
Penobscot County
Old Town, Maine
A-319-71-J-R/A

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Johnson Outdoors Watercraft, Inc. (JOW) has applied to renew their Air Emission License permitting the operation of emission sources associated with their boat manufacturing facility.
2. The name of this facility was previously Old Town Canoe Company. On May 28, 2009 Old Town Canoe Company filed with the Secretary of State to change their name to Johnson Outdoors Watercraft, Inc. This is a change in name only and does not represent any change in ownership.
3. The equipment addressed in this license is located at 35 Middle Street and 125 Gilman Falls Ave in Old Town, Maine.
4. JOW has requested an amendment to their license in order to make the following changes:
 - a. Move the facility's main manufacturing location from Middle Street to Gilman Falls Ave;
 - b. Add four new ovens to their license;
 - c. Permanently shut down Boilers #1 and #2
 - d. Reduce the annual fuel limit for Boiler #3; and
 - e. Reduce the facility wide VOC/HAP limit.

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B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #3	10.1	67	#6 fuel oil, 2.0%	B3

JOW previously licensed Boiler #1 (13.5 MMBtu/hr) and Boiler #2 (10.0 MMBtu/hr). This equipment has been permanently shut down and is no longer licensed to operate.

Ovens

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (scf/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Oven #1 (previously #8)	1.8	1,765	Natural Gas, negligible	1
Oven #2 (previously #9)	1.8	1,765	Natural Gas, negligible	2
Oven #3 (previously #6)	4.0	3,922	Natural Gas, negligible	3
Oven #4	1.1	1,078	Natural Gas, negligible	4
Oven #5	1.1	1,078	Natural Gas, negligible	5
Oven #6 (previously #7)	2.5	2,451	Natural Gas, negligible	6
Oven #7	3.0	2,941	Natural Gas, negligible	7
Oven #8	2.5	2,451	Natural Gas, negligible	8

Ovens #4, 5, 7, and 8 are new to this air emission license.

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as defined in the Department’s regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Sig. Level</u>
PM	15.8	5.5	-10.3	100
PM ₁₀	15.8	5.5	-10.3	100
SO ₂	39.8	15.8	-24.0	100
NO _x	23.3	11.6	-11.7	100
CO	14.0	6.6	-7.4	100
VOC	39.9	9.9	-30.0	50

Therefore, the license is considered to be a renewal with a minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

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 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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 CMR 100 (last amended December 24, 2005). 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. Relocation

JOW has chosen to relocate their manufacturing process from 35 Middle Street to 125 Gilman Falls Ave both in Old Town, Maine. Relocation and/or shutdown of all of the ovens at the Middle Street location will be complete by January 1, 2010.

C. Boiler #3

Boiler #3 is a Cleave Brooks boiler rated at 10.1 MMBtu/hr firing #6 fuel oil (2.0% sulfur). This unit was originally installed in 1977.

Boiler #3 is located at the Middle Street location and will be used to keep the building from freezing until a final disposition of the building is made.

Boiler #3 was built before 1989 and is therefore not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boiler #3 is the following:

1. The total fuel use for Boiler #3 shall not exceed 100,000 gal/year of #6 fuel oil, based on a 12 month rolling total, with a maximum sulfur content not to exceed 2.0% by weight.
2. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
4. NO_x emission limits are based on data from similar #6 oil fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from Boiler #3 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

D. Ovens

JOW is licensed to operate eight rotomolding ovens that are too large to be considered insignificant activities at their Gilman Falls Ave. location. In these ovens powdered polyethylene is introduced into a mold which is heated and rotated until the powder melts and is distributed evenly. This process may involve three layers of molding. All of the rotomolding ovens fire natural gas.

Ovens #1, 2, 3, and 6 were previously licensed to operate at the Middle Street building and will be relocated to Gilman Falls Ave. Ovens #4, 5, 7, and 8 are being brought in from JOW's other locations and are new to this license.

A summary of the BACT analysis for the rotomolding ovens is the following:

1. Ovens #1 – 8 shall only fire natural gas.
2. PM emission limits are based on data from similar natural gas fired equipment of this size and age.
3. SO₂ emissions are assumed to be negligible.
4. NO_x, CO and VOC emission limits are based upon AP-42 data dated 7/98.
5. Visible emissions from the ovens shall each not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

E. VOC/HAP Emissions

JOW previously produced fiberglass and wooden products. JOW will no longer be using gel-coats and resins in the production of fiberglass and wood/canvas canoes. These production lines were the primary generators of VOCs and HAPs.

JOW will continue to have some chemical usage as part of their Research and Development phase of product development. JOW also uses resins and gel-coats in the production of drilling jigs. These jigs are used for the placement of drilled holes in the finished kayaks. The jigs are used until they are worn out or the product line is discontinued. Very few of these are produced in a year.

Therefore, JOW has requested a reduction in their annual VOC/HAP emission limit. JOW shall continue to use a mass balance method to determine the amount of VOCs/HAPs emitted from the facility. JOW shall ensure all mold release, resin, varnish, sealer, and other potential sources of VOC emitting compounds are tightly sealed in containers when not being used.

F. Annual Emissions

JOW shall be restricted to the following annual emissions, based on a 12 month rolling total:

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	Total HAP
Boiler #3	1.5	1.5	15.8	3.8	0.3	--	--
Oven #1	0.4	0.4	--	0.8	0.6	--	--
Oven #2	0.4	0.4	--	0.8	0.6	--	--
Oven #3	0.9	0.9	--	1.7	1.4	--	--
Oven #4	0.2	0.2	--	0.5	0.4	--	--
Oven #5	0.2	0.2	--	0.5	0.4	--	--
Oven #6	0.6	0.6	--	1.1	0.9	--	--
Oven #7	0.7	0.7	--	1.3	1.1	--	--
Oven #8	0.6	0.6	--	1.1	0.9	--	--
Facility Wide	--	--	--	--	--	9.9	2.0
Total TPY	5.5	5.5	15.8	11.6	6.6	9.9	2.0

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the total facility licensed emissions, JOW is below the emissions level required for modeling and monitoring.

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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-319-71-J-R/A subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 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 CMR 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 CMR 115]

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 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 CMR 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 CMR 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 CMR 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 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR 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 CFR 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 CMR 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 such test results, 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 CFR 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 CMR 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 Part 70 license requirement. [06-096 CMR 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 emission 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 CMR 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 CMR 115]

SPECIFIC CONDITIONS

(16) Boiler #3 (Middle Street Location)

A. Total fuel use for Boiler #3 shall not exceed 100,000 gal/yr of #6 fuel oil with a maximum sulfur content not to exceed 2.0% by weight. Compliance shall be demonstrated by fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #3	PM	0.20	06-096 CMR 103(2)(A)(1)

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #3	2.02	2.02	21.22	5.05	0.34	0.02

D. Visible emissions from Boiler #3 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) Ovens (Gilman Ave Location)

A. The rotomolding ovens shall fire only natural gas. [06-096 CMR 115, BACT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Oven #3	PM	0.05	06-096 CMR 115, BACT
Oven #7	PM	0.05	06-096 CMR 115, BACT

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Oven #1	0.09	0.09	0.17	0.15	0.01
Oven #2	0.09	0.09	0.17	0.15	0.01
Oven #3	0.20	0.20	0.39	0.33	0.02
Oven #4	0.06	0.06	0.11	0.09	0.01
Oven #5	0.06	0.06	0.11	0.09	0.01
Oven #6	0.13	0.13	0.24	0.20	0.01
Oven #7	0.15	0.15	0.29	0.24	0.02
Oven #8	0.13	0.13	0.24	0.20	0.01

D. Visible emissions from the ovens shall each not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

(18) Facility Wide Emission Limits

A. JOW shall not exceed an annual emission limit of 9.9 ton/year for VOC based on a 12-month rolling total. Compliance shall be demonstrated by record keeping of chemical usage. [06-096 CMR 115, BACT]

B. JOW shall not exceed an annual emission limit of 2.0 ton/year for all HAP combined based on a 12-month rolling total. Compliance shall be demonstrated by record keeping of chemical usage.[06-096 CMR 115, BACT]

(19) JOW shall ensure all mold release, resin, varnish, sealer, paint, and other potential sources of VOC and/or HAP emitting compounds are tightly sealed in containers when not in use. [06-096 CMR 115, BPT]

Johnson Outdoors Watercraft, Inc.
Penobscot County
Old Town, Maine
A-319-71-J-R/A

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Departmental
Findings of Fact and Order
Air Emission License

- (20) JOW 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.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 3rd DAY OF November, 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 9/28/09

Date of application acceptance: 10/1/09

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.

