STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Bath Iron Works Corporation,		
Hardings Facility	)	**Departmental**
Cumberland County	)	**Findings of Fact and Order**
Brunswick, Maine	)	**Air Emission License**
A-271-71-L-R (SM)	)	**Renewal**

After review of the air emissions license renewal 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., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Bath Iron Works Corporation, Hardings Facility (BIW) of Brunswick, Maine has applied to renew their Air Emission License, permitting the operation of emission sources associated with their shipbuilding prefabrication facility.

The equipment in this license is located at Bath Road, Brunswick, Maine.

B. Emission Equipment

BIW is authorized to operate the following air emission units:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Fuel Type, %Sulfur	Maximum Firing Rate	Date of Installation	Stack #
Boiler #1	9.0	#2 fuel oil, 0.5%	60 gph	1940	1
Boiler #2	9.0	#2 fuel oil, 0.5%	60 gph	1940	1
Boiler #3	25.1	Natural Gas, #2 fuel oil, 0.5%	406 scfm 167.5 gph	1972	1
Heat Treat Furnace	5.0	#2 fuel oil, 0.5%	35.2 gph	1985	2

Hot Air Furnace (Navy Warehouse)	1.25	#1 fuel oil, 0.15%	9.3 gph	unknown	A.V.
Blast and Paint Heater	5.5	Natural Gas	90 scfm	1989	A.V.
Preheat Oven (powder coat room)	2.0	Natural Gas	32.4 scfm	1997	A.V.
Cure Oven (powder coat room)	3.0	Natural Gas	48.5 scfm	1997	A.V.
Batch Oven	2.5	Natural Gas	40.5 scfm	1997	A.V.

A.V. = Ambient Vent

Process Equipment

Equipment	**Max.Raw Material Process Rate**	**Max. Finished Material Process Rate**	**Pollution Control Equipment**	**Stack #**
Blast Line (building 0741)	252,000 lb/hr	7 ft/min (plate) 4.5 ft/min (shapes)	Torit Dust Collector	A.V.
Paint Line (building 0741)	0.22 gal/min	7 ft/min (plate) 4.5 ft/min (shapes)	fabric filter	A.V.
Spray Paint Booth (powder coat room)	0.22 gal/min	4 tables of parts/hr	fabric filter	A.V.
Aluminum Oxide Blast Cabinet	2,250 lb/hr	2 tables of parts/hr	dust collector	fugitive
Safety Kleen Tank (new maint. garage)	30 gallons	N/A	label w/operation control	fugitive

BIW operates several fuel burning units which have heat input capacities less than 1.0 MMBtu/hr and are therefore noted for inventory purposes only. In addition, the Blast Barrel located in the powder coat room is considered insignificant and has not been listed as process equipment in this license.

C. Application Classification

The application for BIW does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the fuel limit placed on the use of #2 fuel oil, the facility is licensed below the major source thresholds and is considered a synthetic minor source.

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 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. Boilers #1 and #2

BIW operates Boilers #1 and #2 for heat. The boilers were manufactured in 1940, each with a heat input capacity of 9.0 MMBtu/hr.

Due to the size and year of installation, these boilers are 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.

BPT Findings

BPT emission limits for each boiler were based on the following:

PM/PM_{10} – 0.2 lb/MMBtu based on 06-096 CMR 103; 1.8 lb/hr
SO_2 –based on firing ASTM D396 #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu; 4.7 lb/hr
NO_X – 0.45 lb/MMBtu based on previous licenses; 4.1 lb/hr
CO – 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10; 0.33 lb/hr
VOC – 0.2 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10; 0.01 lb/hr
Opacity – Visible Emissions from the shared stack serving Boilers #1, #2, and #3 (Stack #1) shall not exceed an opacity of 30 percent recorded as six (6) minute block averages, except for no more than three (3) six (6) minute block averages in a 3-hour block period; [06-096 CMR 101 2(B)5]

Periodic Monitoring

Periodic monitoring for Boilers #1 and #2 shall include recordkeeping to document fuel use both on a monthly and 12 month rolling total basis. Documentation shall include the type of fuel used.

C. Boiler #3

BIW operates Boiler #3 for heat. The boiler is rated at 25.1 MMBtu/hr and fires natural gas and #2 fuel oil with 0.5% sulfur. The boiler was installed in 1940. Boiler #3 exhausts through a common stack shared with Boilers #1 and #2.

Due to the age of the boiler, it is 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.

1. BPT Findings

The BPT emission limits for the boiler was based on the following:

Natural gas

PM/PM_{10} – 0.05 lb/MMBtu based on 06-096 CMR 115 BPT; 1.26 lb/hr
SO_2 – 0.6 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98); 0.01 lb/hr
NO_X – 100 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98); 2.44 lb/hr
CO – 84 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98); 2.05 lb/hr
VOC – 5.5 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98); 0.13 lb/hr

No. 2 Fuel Oil

The BPT emission limits for the boiler were based on the following:

PM/PM_{10} – 0.2 lb/MMBtu based on 06-096 CMR 103; 5.02 lb/hr
SO_2 –based on firing ASTM D396 #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu; 12.9 lb/hr
NO_X – 0.45 lb/MMBtu BPT based on previous licenses; 11.3 lb/hr
CO – 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10; 0.92 lb/hr
VOC – 0.2 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10; 0.04 lb/hr

Opacity – Visible Emissions from the shared stack serving Boilers #1, #2, and #3 (Stack #1) shall not exceed an opacity of 30 percent recorded as six (6) minute block averages, except for no more than three (3) six (6) minute block averages in a 3-hour block period; [06-096 CMR 101 2(B)5]

Periodic Monitoring

Periodic monitoring for Boiler #3 shall include recordkeeping to document fuel use both on a monthly and 12 month rolling total basis. Documentation shall include the type of fuel used.

2. 40 CFR Part 63 Subpart JJJJJJ

This regulation may apply to Boilers #1, #2 and #3. Units not meeting the definition of boiler or firing gas are not subject to JJJJJJ.

Boilers #1, #2, and #3 may be subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ). The units are considered existing oil boilers.

For informational purposes, a summary of the current applicable federal 40 CFR Part 63 Subpart JJJJJJ requirements is listed below. At this time, the Maine Department of Environmental Protection has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however BIW is still subject to the requirements.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA is due on January 20, 2014; BIW submitted its initial notification on September 9, 2011. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program shall be implemented to include the tune-up of applicable boilers by March 21, 2014. [40 CFR Part 63.11196(a)(1)].

(b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted;

however, the burner must be inspected at least once every 36 months. [40 CFR Part 63.11223(b)(1)]

2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. [40 CFR Part 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million (ppm), by volume, and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(c) A Notification of Compliance Status shall be submitted to EPA no later than 120 days after conducting the initial boiler tune-up. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

(d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report has been submitted.

1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operation of the boiler. [40 CFR Part 63.11223(a)]
2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the type and amount of fuel used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a

description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

iii. Energy Assessment will be required for Boiler #3 because it has a heat input of 10 MMBtu/hr or greater

(a) A one-time energy assessment shall be performed by a qualified energy assessor on the applicable boilers by March 21, 2014. [40 CFR Part 63.11196(a)(3)]

(b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of energy using systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major systems consuming energy from affected boiler(s); a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR Part 63, Table 2(4)]

(c) A Notification of Compliance Status shall be submitted to EPA no later than 120 days after conducting the energy assessment. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]:

(1) copies of notifications and reports with supporting compliance documentation;
(2) identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
(3) documentation of fuel type(s) used monthly by each boiler;
(4) the occurrence and duration of each malfunction of the boiler; and
(5) actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

D. Heat Treat Furnace

BIW operates a Heat Treat Furnace firing # 2 fuel oil having a heat input capacity of 5.0 MMbtu/hr.

Due to the size of the unit and the fact that it is not a steam generating unit, this furnace is 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.

BPT Findings

The BPT emission limits for the Heat Treat Furnace were based on the following:

PM/PM_{10} – 0.12 lb/MMBtu based on 06-096 CMR 103; 0.6 lb/hr
SO_2 –based on firing ASTM D396 #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu; 2.57 lb/hr
NO_X – 20 lb/1000 gallons, 0.146 lb/MMBtu AP-42 Table 1.3-1; 0.73 lb/hr
CO – 6 lb/1000 gal, BPT previous license; 0.22 lb/hr
VOC – 1.5 lb/1000 gal, BPT previous license, dated 5/10; 0.05 lb/hr
Opacity – Visible emissions from the Heat Treat Furnace shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

Periodic Monitoring

Periodic monitoring for the Heat Treat Furnace shall include recordkeeping to document fuel use both on a monthly and 12 month rolling total basis. Documentation shall include the type of fuel used.

E. Hot Air Furnace

The Hot Air Furnace fires kerosene fuel (#1 fuel oil) and has a heat input capacity of 1.25 MMBtu/hr.

The BPT emission limits for the furnace were based on the following:

PM/PM_{10} – 0.12 lb/MMBtu based on 06-096 CMR 103; 0.15 lb/hr
SO_2 –based on firing kerosene with a sulfur content of 0.15% sulfur; 0.15 lb/MMBtu; 0.19 lb/hr

NO_X – 0.45 lb/MMBtu based on previous licenses; 0.57 lb/hr
CO – 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10; 0.05 lb/hr
VOC – 0.34 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10; 0.01 lb/hr
Opacity – Visible emissions from the furnace shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

Periodic Monitoring

Periodic monitoring for the Hot Air Furnace shall include recordkeeping to document fuel use both on a monthly and 12 month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the #1 fuel oil.

Prior to January 1, 2016, the fuel oil fired in Boilers #1,#2, and #3, the Heat Treat Furnace and the Hot Air Furnace shall be ASTM D396 compliant fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning January 1, 2016, the facility shall fire Kerosene and/or #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, the facility shall fire Kerosene and/or #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm).

F. Blast and Paint Heater, Cure Oven, Preheat Oven and Batch Oven

BIW operates a blast and paint building heater and three ovens for drying and curing. These combustion units are rated at 5.5 MMBtu/hr, 2.0 MMBtu/hr, 3.0 MMBtu/hr, and 2.5 MMBtu/hr. These units all fire natural gas. The blast and paint building heater was installed in 1989. All three ovens were installed in 1997.

Due to the size of these units and they are not steam generating units, *they are 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.

BPT Findings

The BPT emission limits for the heater and ovens were each based on the following:

Natural gas

PM/PM_{10} – 0.05lb/MMBtu based on 06-096 CMR 103
SO_2 – 0.6 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)
NO_X – 100 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)
CO – 77 lb/MMscf: BPT previous license
VOC – 5.5 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)
Opacity – Visible emissions from the units firing natural gas shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

The BPT emission limits are as follows:

Unit	**PM** (lb/hr)	**PM_{10}** (lb/hr)	**SO_2** (lb/hr)	**NO_x** (lb/hr)	**CO** (lb/hr)	**VOC** (lb/hr)
Blast and Paint Building heater (5.5 MMBtu/hr), natural gas	0.28	0.28	0.01	0.53	0.41	0.03
Preheat Oven (2 MMBtu/hr) natural gas	0.10	0.10	0.01	0.19	0.15	0.01
Cure Oven (3.0 MMBtu/hr) natural gas	0.15	0.15	0.01	0.29	0.22	0.02
Batch oven (2.5 MMBtu/hr) nat'l gas	0.13	0.13	0.01	0.24	0.19	0.01

Periodic Monitoring

Periodic monitoring for the heater and ovens shall include recordkeeping to document natural gas use both on a monthly and 12 month rolling total basis.

G. Process Equipment

BIW also operates several pieces of process equipment used for blasting, painting, and powder coating product. BPT for the various process equipment shall be as follows:

1. Blast Line
   a. The Blast Line shall vent to a Torit dust collection system.
   b. BIW shall keep a maintenance log recording all routine maintenance of the Blast Line and dust collector.
2. Paint Line
   a. The Paint Line shall vent through a fabric filter to control particulate emissions.
   b. BIW shall keep a maintenance log recording all routine maintenance of the Paint Line (including filter changes).
3. Spray Booth
   a. The Spray Booth shall vent through a fabric filter to control particulate emissions.
   b. BIW shall keep a maintenance log recording all routine maintenance of the Spray Booth (including filter changes).
4. Aluminum Oxide Blasting Cabinet
   a. The Aluminum Oxide Blasting Cabinet shall vent through a dust collector.
   b. BIW shall keep a maintenance log recording all routine maintenance of the Aluminum Oxide Blasting Cabinet and dust collector.
5. Visible Emissions from general process sources, including the Blast Line, the Paint Line, Spray Booth and the Aluminum Oxide Blasting Cabinet, shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.
6. Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) emissions from Process Equipment
   a. BIW shall be limited to 35 ton of VOC emitted from the Process equipment on a 12 month rolling total. Compliance shall be based on Purchase/Use records and manufacturer's data documenting the VOC content of each coating/thinner.
   b. BIW shall be limited to 9.9 tons of any single HAP and 24.9 tons of all HAPs on a 12 month rolling total. Compliance shall be based on Purchase/Use records and manufacturer's data documenting the HAP content of each coating/thinner.

7. 40 CFR Part 63 Subpart XXXXXX

For informational purposes only, a summary of the current applicable federal 40 CFR Part 63 Subpart XXXXXX, *National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories,* requirements is listed below. At this time, the Department has not taken delegation of this area source rule promulgated by EPA, however BIW is still subject to the requirements. BIW is to have achieved compliance with the applicable provisions in this subpart by July 25, 2011.

BIW performs the following processes that are subject to this rule:
- o Dry Abrasive Blasting
- o Dry machining
- o Welding

These operations are subject to the requirements of Subpart XXXXXX only if and when they use materials that contain or have the potential to emit metal fabrication or finishing Hazardous Air Pollutants (MFHAP). MFHAP is defined as containing compounds of cadmium, chromium, lead, manganese and nickel or any of these metals in the elemental form with the exception of lead, are used or have the potential to be emitted in quantities or 0.1 percent or more or 1.0 percent or more for elemental compounds of manganese.

a. Dry Abrasive Blasting

BIW must comply with all of the following Dry Abrasive Blasting management practices [40 CFR §63.11516 (a)]:

i. minimize dust generation during emptying of abrasive blasting enclosures to reduce MFHAP emissions, as practicable
ii. operate all equipment associated with dry abrasive blasting operations according to the manufacturer's instructions
iii. minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable
iv. enclose dusty abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive materials
v. dry abrasive media is not be be reused if contaminated (i.e. any materials other than the base metal such as paint residue) unless the contaminants have been removed by filtration or screening, and the abrasive materials conforms to its original size.

vi. Whenever practicable, BIW must switch from high particulate matter (PM)-emitting blast media (e.g., sand) to low PM-emitting blast media (e.g., crushed glass, specular hematite, steel shot, aluminum oxide), where PM is a surrogate for MFHAP.

BIW has the following controls in place to meet the dry abrasive blasting standard:

i. Operations occur in vented enclosures controlled with filtration devices.
ii. Mechanized conveyor style steel shot blast building for large pieces of sheet metal. Emissions are vented to a Baghouse dust collector.
iii. The aluminum oxide blast booth is vented to a dust collector.
iv. The steel shot blast booth and blast barrel are vented to a fabric filter.

b. Dry Machining
The requirements for Dry Machining are addressed in 40 CFR §63.11516 (b):

i. Minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable.
ii. Operate equipment according to manufacturer's instructions.

Dry Machining is done at various fixed metal milling machines and walk-behind grinders. Compliance is achieved using best management practices.

c. Welding
The welding standards are addressed in 40 CFR §63.11516 (f).

BIW uses less than 2,000 pound of a MFHAP-containing welding rod or wire annually. These standards do not apply when welding operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

BIW must implement one or more of the management practices specified below to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment:

i. Use welding processes with reduced fume generation capabilities; (e.g., gas metal arc welding (GMAW) also called metal inert gas welding).
ii. Use welding process variations (e.g. pulsed current GMAW) which can reduce fume generation rates, if practicable;

iii. Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation;
iv. Optimize welding process variables to reduce the amount of welding fume generated; and
v. Use a welding fume capture and control system, operated according to the manufacturer's specifications, if practicable.
vi. BIW must operate all equipment, capture, and control devices associated with welding operations according to manufacturer's instructions. BIW must demonstrate compliance with this requirement by maintaining these instructions readily available for inspector review.
[40 CFR §63.11513 (c)]

d. Reporting and Recordkeeping

BIW is subject to the notification, recordkeeping and reporting requirements per 40 CFR §63. 11519. The Department received BIW's initial notification on July 12, 2011 and their Notification of Compliance Status on January 23, 2012 as required by 63.11519 (a)(1) and 63.11519.(a) (2). Annual certification and compliance reports are required per 63. 11519 (b)(1).

H. Parts Washers

BIW operates one parts washer with a capacity of 30 gallons. This parts washer is subject to the requirements set forth in *Solvent Cleaners*, 06-096 CMR 130 (last amended). Records shall be kept of solvent added to the parts washer.

I. Annual Facility Emissions

BIW has the following annual emissions, based on the following fuel uses and process emissions (all based on a 12 month rolling total):

1. 475,000 gallons of #2 fuel oil with a maximum sulfur content not to exceed 0.5% by weight.
2. 8,760 hours of #1 fuel oil (kerosene) use in the Hot Air Furnace with a sulfur content not to exceed 0.15% by weight.
3. 8,760 hours of natural gas use in natural gas fired units, including the worst case scenario of Boiler #3 firing only natural gas.
4. VOC emissions from the process equipment shall not exceed 35.0 tons/year.
5. BIW shall be limited to 9.9 tons of any single HAP and 24.9 tons of all HAPs on a 12 month rolling total. Compliance shall be based on Purchase/Use records and manufacturer's data documenting the HAP content of each coating/thinner.

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	Single HAP	Total HAP
Total #2 fuel oil	6.51	6.51	16.74	14.84	1.19	0.05	---	---
Boiler #3 gas	5.50	5.50	0.06	10.67	8.97	0.59	---	---
Hot Air Furnace	0.66	0.66	0.85	2.50	0.20	0.01	---	---
Blast Heater	1.20	1.20	0.01	2.34	1.80	0.13	---	---
Preheat Oven	0.44	0.44	0.01	0.85	0.65	0.05	---	---
Cure Oven	0.66	0.66	0.01	1.28	0.98	0.07	---	---
Batch Oven	0.55	0.55	0.01	1.06	0.82	0.06	---	---
Process Equipment	--	--	--	--	--	35.00	---	---
Total TPY	**15.5**	**15.5**	**17.7**	**33.5**	**13.9**	**36.0**	**9.9**	**24.9**

6. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011 through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. "Greenhouse gases" as defined in 06-096 CMR 100 (as amended) means the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Greenhouse gases (GHG) for purposes of licensing are calculated and reported as carbon dioxide equivalents (CO_2 e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, BIW is below the major source threshold of 100,000 tons of CO_2 e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

According to the 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

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-271-71-L-R (SM), 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-A. [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) Fuel Use Limits

A. BIW shall not exceed 475,000 gallons of #2 fuel oil (12 month rolling total) with a maximum sulfur content not to exceed 0.5% by weight. [06-096 CMR 115, BPT]

B. The maximum sulfur content of the kerosene used in the Hot Air Furnace shall not exceed 0.15%. [06-096 CMR 115, BPT]

C. Prior to January 1, 2016, the #2 fuel oil fired in the boilers shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]

D. Beginning January 1, 2016, the facility shall fire kerosene and/or #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]

E. Beginning January 1, 2018, the facility shall fire kerosene and/or #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

F. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

(17) Boilers #1 and #2

A. Emissions from Boilers #1 and #2 shall not exceed the following:

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

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

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 (9 MMBtu/hr) #2 fuel	1.8	1.8	4.7	4.1	0.33	0.01
Boiler #2 (9 MMBtu/hr) #2 fuel	1.8	1.8	4.7	4.1	0.33	0.01

C. Visible Emissions from the shared stack serving Boilers #1, #2, and #3 (Stack #1) shall not exceed an opacity of 30 percent recorded as six (6) minute block averages, except for no more than three (3) six (6) minute block averages in a 3-hour block period; [06-096 CMR 101 2(B)5]

(18) Boiler #3

A. Emissions from #3 boiler shall not exceed the following when firing #2 fuel oil:

Emission Unit	**Pollutant**	**lb/MMBtu**	**Origin and Authority**
Boiler # 3	PM	0.2	06-096 CMR 103(2)(B)(1)(a)

B. Emissions shall not exceed the following when firing #2 fuel oil [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	5.02	5.02	12.9	11.3	0.92	0.04

C. Emissions from #3 Boiler shall not exceed the following when firing natural gas:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #3	PM	0.05	06-096 CMR 115, BPT

D. Emissions shall not exceed the following when firing natural gas [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	1.26	1.26	0.01	2.44	2.05	0.13

E. Visible emissions from the shared stack serving Boiler #1, #2, and Boiler #3 (Stack #1) shall not exceed 30% opacity on a six (6) minute block average, except for no more than three (3), six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101 2(B)5]]

(19) Heat Treat Furnace

A. Emissions from the Heat Treat Furnace shall not exceed the following when firing #2 fuel oil:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Heat Treat Furnace	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

B. Emissions shall not exceed the following when firing #2 fuel oil [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	0.6	0.6	2.57	0.73	0.22	0.05

C. Visible emissions from the Heat Treat Furnace shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1), six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(20) Hot Air Furnace

A. Emissions from the Hot Air Furnace shall not exceed the following: [06-096 CMR 115, BPT]

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Hot Air Furnace	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

B. 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)
Hot Air Furnace	0.15	0.15	0.19	0.57	0.05	0.01

C. Visible emissions from the Hot Air Furnace shall not exceed an opacity of 20 % on a six (6) minute block average basis, except for no more than one (1), six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(21) Blast and Paint Heater, Cure Oven, Preheat Oven, and Batch Oven

A. Emissions from the Blast and Paint Heater, Cure Oven, Preheat Oven, and Batch Oven shall not exceed the following: [06-096 CMR 115, 06-096 CMR 103, BPT]

Equipment		PM	PM_{10}	SO_2	NO_x	CO	VOC
Blast and Paint Heater	lb/MMBtu	0.05	-	-	-	-	-
	lb/hr	0.28	0.28	0.01	0.53	0.41	0.03
Cure Oven	lb/MMBtu	0.05	-	-	-	-	-
	lb/hr	0.15	0.15	0.01	0.29	0.22	0.02
Preheat Oven	lb/hr	0.10	0.10	0.01	0.19	0.15	0.01
Batch Oven	lb/hr	0.13	0.13	0.01	0.24	0.19	0.01

B. Visible emissions from the Blast and Paint Heater, Cure Oven, Preheat Oven, and Batch Oven shall **each** not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than one (1), six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(22) Process Equipment

A. Blast Line [06-096 CMR 115, 06-096 CMR 101, BPT]
   1. The Blast Line shall vent to a Torit dust collection system.
   2. BIW shall keep a maintenance log recording the date and location of all routine maintenance on the Blast Line and Dust Collector.

B. Paint Line [06-096 CMR 115, 06-096 CMR 101, BPT]
   1. The Paint Line shall vent through a fabric filter to control particulate emissions.
   2. BIW shall keep a maintenance log recording all routine maintenance of the Paint Line (including filter changes).

C. Spray Booth [06-096 CMR 115, 06-096 CMR 101, BPT]
   1. The Spray Booth shall vent through a fabric filter to control particulate emissions.
   2. BIW shall keep a maintenance log recording all routine maintenance of the Spray Booth (including filter changes).

D. Aluminum Oxide Blasting Cabinet [06-096 CMR 115, 06-096 CMR 101, BPT]
   1. The Aluminum Oxide Blasting Cabinet shall vent through a dust collector.
   2. BIW shall keep a maintenance log recording all routine maintenance of the Aluminum Oxide Blasting Cabinet and dust collector.

E. Visible Emissions from general process sources, including the Blast Line, the Paint Line, Spray Booth and the Aluminum Oxide Blasting Cabinet, shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

F. VOC and HAP emissions from Process Equipment [06-096 CMR 115, BPT]
   1. BIW shall be limited to 35 ton of VOC emitted from the Process equipment on a 12 month rolling total. Compliance shall be based on Purchase/Use records and manufacturer's data documenting the VOC content of each coating/thinner.
   2. BIW shall be limited to 9.9 tons of any single HAP and 24.9 tons of all HAPs on a 12 month rolling total. Compliance shall be based on Purchase/Use records and manufacturer's data documenting the HAP content of each coating/thinner.

(23) Parts Washer

The parts washer at BIW is subject to 06-096 CMR 130.

A. BIW shall keep records of the amount of solvent added to the parts washer. [06-096 CMR 115, BPT]

B. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under Chapter 130.

1. BIW shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
   (i) Waste solvent shall be collected and stored in closed containers.
   (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
   (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
   (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
   (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
   (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
   (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
   (viii) Work area fans shall not blow across the opening of the degreaser unit.
   (ix) The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(24) Annual Emission Statement

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department; or
2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

(25) BIW 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 31 DAY OF January 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 2/22/2008
Date of application acceptance: 3/7/2008

Date filed with the Board of Environmental Protection:

Filed
FEB 1 2013
State of Maine
Board of Environmental Protection

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