



DEPARTMENT ORDER

**Bath Iron Works Corporation
Cumberland County
Brunswick, Maine
A-271-71-P-R/A**

**Departmental
Findings of Fact and Order
Air Emission License
Renewal and Amendment**

FINDINGS OF FACT

After review of the air emission license renewal 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

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

BIW has additionally requested to increase the annual VOC emission limit from process equipment from 35.0 tons/year to 46.5 tons/year in order to accommodate an increase of activity at the facility.

Various areas and buildings throughout the facility have been re-named, and the equipment located within will have their names updated in this license to reflect this change. All designations for equipment and locations will be updated to the following convention:

- The Hardings Facility is now the Structural Fabrication Facility (SFAB).
- The East Brunswick Manufacturing Facility (EBMF) is now the Outfit Fabrication Facility (OFAB).
- Building 11-0090 is now the Powder Coat Facility (PC).
- The Central Warehouse remains the same (CW).

The equipment addressed in this license is located on Bath Rd, Brunswick, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

| Equipment | Max. Capacity (MMBtu/hr) | Fuel Type, % sulfur | Maximum Firing Rate | Date of Install. | Stack # |
|---------------------------|--------------------------|--------------------------|---------------------|------------------|---------|
| Boiler #3 (SFAB) | 25.1 | natural gas, neg. | 24,360 scf/hr | 1972 | S1 |
| | | distillate fuel, 0.0015% | 167.5 gal/hr | | |
| Boiler #4 (OFAB) | 2.5 | natural gas, neg. | 2,454 scf/hr | 1989 | O1 |
| Furnace #5 (CW)** | 3.8 | natural gas, neg. | 3,678 scf/hr | 1986 | CW1 |
| Furnace #6 (CW)** | 3.8 | natural gas, neg. | 3,678 scf/hr | 1986 | CW2 |
| Boiler #7 (PC) | 1.5 | natural gas, neg. | 1,470 scf/hr | 2000 | P1 |
| Boiler #8 (SFAB) | 25.2 | natural gas, neg. | 20,106 scf/hr | 2020 | S1 |
| | | distillate fuel, 0.0015% | 180 gal/hr | | |
| Heat Treat Furnace (SFAB) | 5.0 | distillate fuel, 0.0015% | 35.2 gal/hr | 1985 | S2 |
| Hot Air Furnace (SFAB) | 1.3 | distillate fuel, 0.0015% | 9.3 gal/hr | Prior to 1987 | A.V.* |
| Preheat Oven #1 (SFAB) | 4.0 | natural gas, neg. | 4,020 scf/hr | 2018 | S3 |
| Preheat Oven #2 (SFAB) | 4.0 | natural gas, neg. | 4,020 scf/hr | 2018 | S3 |
| Drying Oven (SFAB) | 4.0 | natural gas, neg. | 4,020 scf/hr | 2018 | S3 |
| Cure Oven (PC) | 2.9 | natural gas, neg. | 2,844 scf/hr | 2019 | A.V.* |
| Batch Oven (PC) | 1.6 | natural gas, neg. | 1,566 scf/hr | 2019 | A.V.* |
| Makeup Air Unit #1 (OFAB) | 4.3 | natural gas, neg. | 4,164 scf/hr | 1989 | A.V.* |
| Makeup Air Unit #2 (OFAB) | 4.3 | natural gas, neg. | 4,164 scf/hr | 1989 | A.V.* |

*Ambient Vent

** Previously listed in error as Boilers

Stationary Engines

| Equipment | Max. Input Capacity (MMBtu/hr) | Rated Output Capacity (kW) | Fuel Type, % sulfur | Firing Rate (scf/hr) | Date of Manuf. | Date of Install. |
|-----------------------------------|--------------------------------|----------------------------|---------------------|----------------------|----------------|------------------|
| Guard Shack Emergency Generator * | 0.29 | 20 | natural gas, neg | 281 | 2021 | 2022 |

* The above listed generator is below licensing thresholds and is therefore considered an insignificant activity and is included in this license for completeness purposes only.

BIW may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department’s website at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, BIW may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

Process Equipment

| Equipment | Max. Raw Material Process Rate | Max. Finished Process Rate | Pollution Control Equipment | Stack # |
|---------------------------------|--------------------------------|------------------------------------------------------|-----------------------------|----------|
| SFAB Blast Line | 350,000 lb/hr | 6-10 feet/min for steel plates and structural shapes | Dust Collector | Fugitive |
| SFAB Aluminum Oxide Blast Booth | 2,250 lb/hr | 2 carts of parts per hour | Dust Collector | Fugitive |
| SFAB Paint Booth | 0.22 gal/min | 4 carts of parts per hour | Fabric Filter | Fugitive |
| SFAB Paint Line | 0.25 gal/min | 6-10 feet/min for steel plates and structural shapes | 3 levels of Fabric Filter | Fugitive |
| OFAB Paint Booth #1 | 30 gal/hr | N/A | Fabric Filter | A.V.* |
| OFAB Paint Booth #2 | 30 gal/hr | N/A | Fabric Filter | A.V.* |

| Equipment | Max. Raw Material Process Rate | Max. Finished Process Rate | Pollution Control Equipment | Stack # |
|------------------------------------|--------------------------------|--------------------------------|-----------------------------|---------|
| OFAB Steel Grit Blast Booth | 3,150 lb/hr (recycled) | 4 carts of parts per day | Dust Collector | A.V.* |
| PC Steel Grit Abrasive Blast Booth | 3,150 lb/hr (recycled) | 4 carts of parts per day | Dust Collector | A.V.* |
| PC Aluminum Oxide Blast Booth | 1,260 lb/hr (recycled) | 4 carts of parts per day | Dust Collector | A.V.* |
| PC Automated Powder Booth | 4-6 feet/min (conveyor speed) | 300-1,000 square feet per hour | Cartridge Filter | A.V.* |
| PC Paint Booth | 15 gal/hr | 2 carts of parts per day | Fabric Filter | A.V.* |
| PC Batch Powder Booth | 100-1,500 lb/hr | 20-500 square feet per hour | Cartridge Filter | A.V.* |

*Ambient Vent

Parts Washers

| Equipment | Capacity (gallons) | Solvent Used | Solvent % VOC |
|-------------------|--------------------|-----------------------------------|---------------|
| SFAB Parts Washer | 30 | Safety Kleen Premium Gold Solvent | 100% |
| OFAB Parts Washer | 5 | Safety Kleen Premium Gold Solvent | 100% |
| PC Parts Washer | 30 | Safety Kleen Premium Gold Solvent | 100% |
| CW Parts Washer | 5 | Safety Kleen Premium Gold Solvent | 100% |

C. Definitions

Cleaning Activities means the use of solvents to remove contaminants including, but not limited to, adhesives, inks, paint, dirt, soil, oil, and grease from parts, products, tools, machinery, equipment, vessels, and work production related areas for a variety of reasons, including safety, operability, and to avoid product contamination; this includes activities such as wiping, flushing, or spraying. Examples of such activities may include, but are not limited to, the cleaning of spray booths, spray guns, and printing presses.

Dry Abrasive Blasting means cleaning, polishing, conditioning, removing, or preparing a surface by propelling a stream of abrasive material with compressed air against the surface. Hydroblasting, wet abrasive blasting, or other abrasive blasting operations which employ liquids to reduce emissions are not dry abrasive blasting. [40 C.F.R. § 63.11522]

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.

Industrial Cleaning Solvents means products containing VOC when used for cleaning activities applied to items and surfaces used in manufacturing, processing, mining, and refining or other manufacturing activities.

Metal Fabrication and Finishing HAP (MFHAP) means any compound of the following metals: cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form, with the exception of lead. [40 C.F.R. § 63.11522]

Material Containing MFHAP means a material containing one or more metal fabrication and finishing HAP (MFHAP), i.e., any material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Safety Data Sheet for the material. [40 C.F.R. § 63.11522]

Records or Logs mean either hardcopy or electronic records.

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 application for BIW does include the licensing of increased emissions. Therefore, the license is considered to be a renewal of currently licensed emission units of a minor source with a modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

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. 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 | 24.0 | 22.3 | -1.7* | 100 |
| PM ₁₀ | 24.0 | 22.3 | -1.7* | 100 |
| SO ₂ | 1.1 | 0.8 | -0.3* | 100 |
| NO _x | 47.5 | 43 | -4.5* | 100 |
| CO | 24.7 | 24.7 | 0.0 | 100 |
| VOC | 37.5 | 48.8 | 11.3 | 50** |

* Reflects a correction of calculated emissions from existing emission units.

** BIW is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emission level for VOC is 50 tpy.

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

E. Facility Classification

With the annual fuel limit on the distillate fuel fired boilers and heaters, and the facility wide VOC limit the facility is licensed as follows:

- As a synthetic minor source of air emissions for NO_x and VOC because BIW 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.

Emissions of VOC are licensed above 80% of the major source threshold. Therefore, this facility is classified as an “80% Synthetic Minor” for the purpose of determining the minimum required compliance inspection frequency in accordance with Maine’s Compliance Monitoring Strategy.

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 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. Fuel Burning Equipment

BIW operates Boilers #3, #4, #7, and #8, Furnaces #5 and #6, the SFAB Hot Air Furnace, and OFAB Makeup Air Units #1 and #2 for heat throughout the facility. Boilers #4 and #7, Furnaces #5 and #6, and OFAB Makeup Air Units #1 and #2 fire natural gas exclusively, Boilers #3 and #8 fire distillate fuel or natural gas, and the SFAB Hot Air Furnace fires exclusively distillate fuel.

Furnaces #5 and #6 were previously licensed as Boilers #5 and #6. The units do not heat water and are therefore not considered boilers. Their names have been changed to reflect this clarification.

BIW operates the SFAB Heat Treat Furnace, the SFAB Preheat Ovens #1 and #2, the SFAB Drying Oven, the PC Cure Oven, and the PC Batch Oven as process heaters used in the various fabrication activities at the facility. The SFAB Heat Treat Furnace fires distillate fuel, while the SFAB Preheat Ovens #1 and #2, the SFAB Drying Oven, the PC Cure Oven, and the PC Batch Oven each fire natural gas.

Boilers #3, #8, the SFAB Heat Treat Furnace, and the SFAB Hot Air Furnace are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in Boilers #3, #8, the SFAB Heat Treat Furnace, and the SFAB Hot Air Furnace shall not exceed 0.0015% by weight (15 ppm).

1. BPT Findings

The BPT emission limits for the fuel burning equipment were based on the following:

Boiler #3

Distillate Fuel

- | | |
|---------------------|--------------------------------------------------------------------------------------|
| PM/PM ₁₀ | – 0.2 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT |
| SO ₂ | – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight |
| NO _x | – 0.45 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT |
| CO | – 5 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10 |
| VOC | – 0.2 lb/MMBtu based on AP-42 Table 1.3-3 dated 5/10 |

SFAB Heat Treat Furnace and SFAB Hot Air Furnace

Distillate Fuel

- PM/PM₁₀ – 0.12 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 20 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
- CO – 6 lb/1000 gal based on 06-096 C.M.R. ch. 115, BPT
- VOC – 1.5 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10

Boilers #3, #4, and #7, Furnaces #5 and #6, SFAB Preheat Ovens #1 and #2, the SFAB Drying Oven, the PC Cure Oven, and the PC Batch Oven

Natural Gas

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
- NO_x – 100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
- CO – 84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98

Boiler #8

Distillate Fuel

- PM – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- PM₁₀ – 0.03 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 0.11 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- CO – 0.04 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- VOC – 0.007 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT

Natural Gas

- PM/PM₁₀ – 0.03 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.03 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
- NO_x – 0.035 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- CO – 0.01 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- VOC – 0.007 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for fuel burning equipment are the following:

| Unit | Fuel | Pollutant | lb/MMBtu |
|-------------------------|-----------------|---------------------|----------|
| Boiler #3 | distillate fuel | PM | 0.2 |
| | natural gas | PM | 0.05 |
| Boiler #8 | distillate fuel | PM | 0.05 |
| | | PM ₁₀ | 0.03 |
| | natural gas | PM/PM ₁₀ | 0.03 |
| Furnace #5 | natural gas | PM | 0.05 |
| Furnace #6 | natural gas | PM | 0.05 |
| SFAB Heat Treat Furnace | distillate fuel | PM | 0.12 |
| SFAB Preheat Oven #1 | natural gas | PM | 0.05 |
| SFAB Preheat Oven #2 | natural gas | PM | 0.05 |
| SFAB Drying Oven | natural gas | PM | 0.05 |
| OFAB Makeup Air Unit #1 | natural gas | PM | 0.05 |
| OFAB Makeup Air Unit #1 | natural gas | PM | 0.05 |

| Unit | Fuel | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|-------------------------|-----------------|------------|--------------------------|-------------------------|-------------------------|------------|-------------|
| Boiler #3 | distillate fuel | 5.02 | 5.02 | 0.04 | 11.30 | 0.84 | 0.03 |
| | natural gas | 1.26 | 1.26 | 0.02 | 2.44 | 2.05 | 0.13 |
| Boiler #4 | natural gas | 0.13 | 0.13 | 0.01 | 0.25 | 0.21 | 0.01 |
| Furnace #5 | natural gas | 0.19 | 0.19 | 0.01 | 0.37 | 0.31 | 0.02 |
| Furnace #6 | natural gas | 0.19 | 0.19 | 0.01 | 0.37 | 0.31 | 0.02 |
| Boiler #7 | natural gas | 0.08 | 0.08 | 0.01 | 0.15 | 0.12 | 0.01 |
| Boiler #8 | distillate fuel | 1.26 | 0.76 | 0.04 | 2.77 | 1.01 | 0.18 |
| | natural gas | 0.76 | 0.76 | 0.03 | 0.88 | 0.25 | 0.18 |
| SFAB Heat Treat Furnace | distillate fuel | 0.60 | 0.60 | 0.01 | 0.70 | 0.21 | 0.05 |
| SFAB Hot Air Furnace | distillate fuel | 0.16 | 0.16 | -- | 0.19 | 0.05 | 0.01 |

| Unit | Fuel | PM (lb/hr) | PM₁₀ (lb/hr) | SO₂ (lb/hr) | NO_x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|-------------------------|-------------|-----------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------|------------------------|
| SFAB Preheat Oven #1 | natural gas | 0.20 | 0.20 | 0.01 | 0.40 | 0.34 | 0.02 |
| SFAB Preheat Oven #2 | natural gas | 0.20 | 0.20 | 0.01 | 0.40 | 0.34 | 0.02 |
| SFAB Drying Oven | natural gas | 0.20 | 0.20 | 0.01 | 0.40 | 0.34 | 0.02 |
| PC Cure Oven | natural gas | 0.15 | 0.15 | 0.01 | 0.28 | 0.24 | 0.02 |
| PC Batch Oven | natural gas | 0.08 | 0.08 | 0.01 | 0.16 | 0.13 | 0.01 |
| OFAB Makeup Air Unit #1 | natural gas | 0.22 | 0.22 | 0.01 | 0.42 | 0.35 | 0.02 |
| OFAB Makeup Air Unit #1 | natural gas | 0.22 | 0.22 | 0.01 | 0.42 | 0.35 | 0.02 |

BIW shall be limited to a facility-wide fuel use limit of 475,000 gallons per year of distillate fuel on a 12- month rolling total basis. This limit applies to licensed emission units only and excludes insignificant activities.

2. Boiler #8 Specific Findings

Boiler #8 shall be equipped and operated with an oxygen trim system, flue gas recirculation (FGR), and low NO_x burners. [06-096 C.M.R. ch. 115, BPT]

3. Visible Emissions

- a. Visible emissions from any piece of fuel burning equipment listed above when firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis.
- b. Visible emissions from any piece of fuel burning equipment listed above when firing natural gas shall not exceed 10% opacity on a six-minute block average basis.
- c. Visible emissions from any combined stack shall not exceed 20 % opacity when one or more pieces of equipment that vent to that stack are firing distillate fuel, and shall not exceed 10 % opacity when all pieces of equipment that vent to that stack are firing natural gas.

4. Periodic Monitoring

Periodic monitoring shall include recordkeeping to document distillate 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 fuel.

5. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to the size and year of manufacture, Boiler #8 is subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

Boiler #3 is not subject to 40 C.F.R. Part 60, Subpart Dc due to its year of manufacture. Boilers #4 and #7 are not subject to 40 C.F.R. Part 60, Subpart Dc due to their size.

Furnaces #5 and #6, the SFAB Hot Air Furnace, OFAB Makeup Air Units #1 and #2, SFAB Heat Treat Furnace, SFAB Preheat Ovens #1 and #2, SFAB Drying Oven, PC Cure Oven, and the PC Batch Oven are not subject to 40 C.F.R. Part 60, Subpart Dc because the units are not considered boilers as they are not used to heat water.

a. Notifications

BIW was required to submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up of Boiler #8, including the design heat input capacity of the boiler and the type of fuel to be combusted. [40 C.F.R. § 60.48c(a)] BIW submitted this Notification to EPA on January 27, 2021.

b. Standards

Sulfur Dioxide (SO₂)

The fuel fired in Boiler #8 shall not exceed 0.5% sulfur by weight.

[40 C.F.R. § 60.42c(d)] This fuel sulfur content limit shall be streamlined to the lower limit required by State statute.

c. Initial Compliance Requirements

BIW was required to perform the following within 30 days after achieving the maximum production rate at which the boiler will be operated but not later than 180 days after the initial start-up of the boiler:

Submit to EPA and the Department copies of the fuel supplier certification of the sulfur content of the distillate fuel fired in Boiler #8. The fuel supplier certification must contain the name of the oil supplier, a statement from the oil supplier that the

oil complies with ASTM specifications for distillate oil, and the maximum sulfur content of the oil. [40 C.F.R. § 60.44c(h)]

BIW submitted this Notification in December of 2020.

d. Reporting and Recordkeeping

(1) BIW shall maintain records of the amounts of each fuel combusted in Boiler #8 during each calendar month. [40 C.F.R. § 60.48c(g)]

(2) BIW shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following information for Boiler #8:

- (i) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
- (ii) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
- (iii) Any instances of excess emissions (including opacity) from Boiler #8. [40 C.F.R. § 60.48c(c)]

(3) The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]

(4) The following address for EPA shall be used for any reports or notifications required to be copied to them:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

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

Boilers #3 and #8 are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. Boiler #3 is classified an existing oil boiler, and Boiler #8 is classified as a new oil boiler. [40 C.F.R. §§ 63.11193 and 63.11195]

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. However, boilers which fire fuel oil are not. A “gas-fired boiler” is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 C.F.R. § 63.11237]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010, will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

Boiler #8 is to be operated as a gas-fired unit, firing distillate fuel only during periods when natural gas is not available or periodic testing on distillate fuel, in accordance with the definition of “gas-fired boiler” in Subpart JJJJJ and identified above.

If BIW switches Boiler #8 fuel that results in the applicability of a different subcategory within Subpart JJJJJ or results in the boiler becoming subject to Subpart JJJJJ because of the firing of distillate fuel outside the definition of a gas-fired unit, BIW must demonstrate compliance with the applicable requirements within 180 days of the effective date of the fuel switch. Notification of such a change must be submitted within 30 days of the change and according to § 63.11225(g). [40 C.F.R. § 63.11210(i)] Likewise, if Boiler #8 is switching out of this subpart due to a fuel change that results in the boiler meeting the definition of gas-fired boiler as defined in § 63.11237, BIW must provide notice of the date upon which the fuel switch occurred.

The fuel switch notification must identify the following:

- a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, and the date of the notice.
 - b. The date upon which the fuel switch occurred.
- [40 C.F.R. § 63.11225(g)]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements for oil fired boilers is listed below. Notification forms and additional rule information can be found on the following website: <https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source>.

- a. Compliance Dates, Notifications, and Work Practice Requirements

- (1) Initial Notification of Compliance

An Initial Notification submittal to EPA was due for Boiler #3 no later than January 20, 2014, and was due for Boiler #8 within 120 days after the source became subject to the standard. [40 C.F.R. § 63.11225(a)(2)] BIW submitted their Initial Notification to EPA for Boiler #3 on September 9, 2011. Although BIW has operated Boiler #8 as a gas-fired only unit, an initial notification was submitted on January 22, 2021.

- (2) Boiler Tune-Up Program

- (i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(ii) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

| Boiler Category | Tune-Up Frequency |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with Less Frequent Tune-up Requirements" (Boiler #3) | Every 2 years |
| Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up (Boiler #8) | Every 5 years |

[40 C.F.R. § 63.11223(a) and Table 2]

(iii) 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, not to exceed 36 months from the previous inspection. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 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 C.F.R. § 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. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), 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 C.F.R. § 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 C.F.R. § 63.11223(b)(7)]

(iv) Tune-Up Report: A tune-up report shall be maintained onsite and, submitted to the Department and/or EPA upon request. The report shall contain the following information:

1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
2. A description of any corrective actions taken as part of the tune-up of the boiler; and
3. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

(3) Compliance Report

A compliance report shall be prepared by March 1st every two years for Boiler #3 and every five years for Boiler #8, should it become subject, which covers the previous two calendar years for Boiler #3 and five calendar years for Boiler #8. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:
 1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 2. "No secondary materials that are solid waste were combusted in any affected unit."
 3. "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

- (v) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken; and
- (vi) The total fuel use by each affected boiler subject to an emission limit for each calendar month within the reporting period.

(4) Energy Assessment

Boiler #8 shall be subject to perform an energy assessment in accordance with 40 C.F.R. Part 63, Subpart JJJJJ, Table 2(16) when or if it becomes subject to Subpart JJJJJ.

Boiler #3 is subject to the energy assessment requirement as follows:

A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 C.F.R. § 63.11196(a)(3)] BIW conducted their one-time energy assessment for Boiler #3 on March 23, 2016.

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 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) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. [40 C.F.R. § 63.11225(a)(4)(vi)]

C. Facility Wide VOC and HAP Limit

BIW was previously limited to 35 ton of VOC emitted from the process equipment on a 12-month rolling total basis. BIW has requested that this limit be raised to 46.5 tons/year to accommodate an increase of production activity at the facility. This change to the annual VOC limit is considered a minor modification. BACT for the increase in allowable VOC emissions is as follows:

- 1. BIW shall not use solvents to thin or reduce paint.

2. BIW shall use coatings with lower VOC content whenever possible and consistent with U.S. Navy specifications.
3. BIW shall use paints with a higher solids content when approved by U.S. Navy specifications.
4. BIW shall contain the painting of all items to paint booths when the size will allow.
5. BIW shall contain the painting of oversized items inside a building.
6. BIW shall keep lids of all paint product containers and waste drums sealed when not in use.
7. BIW shall perform paint gun cleaning activities to minimize evaporative losses.
8. BIW shall maintain all required particulate control systems per manufacturer specifications.

With the above conditions, the annual VOC limit for process equipment will be increased to 46.5 tons/year. Compliance shall be based on purchase/use records and the manufacturer's data documenting the VOC content of each material.

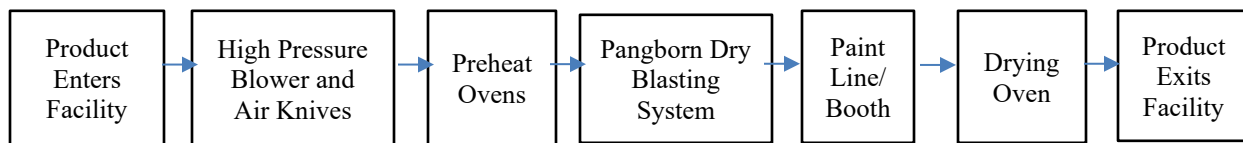
BIW shall be limited to 9.9 tons of any single HAP and 24.9 tons of combined HAPs on a 12-month rolling total basis. Compliance shall be based on purchase/use records and the manufacturer's data documenting the HAP content of each material.

D. Process Equipment

The fabrication activities at BIW consist of welding, painting, and blasting operations taking place at three distinct locations at the facility. Each area is discussed below along with its corresponding operational requirements.

1. SFAB (Structural Fabrication Facility)

Below is a process flow diagram showing the sequence of activities the SFAB Blast & Paint Line Building:



- a. **High Pressure Blower and Air Knives**
Unpainted metal is conveyed from outdoor storage into the Blast and Paint Building. High pressure blowers and air knives are used to remove standing water and moisture from the steel pieces. PM emissions from this step are negligible.
- b. **SFAB Preheat Ovens**
The dry steel enters SFAB Pre-heat Ovens #1 and #2 to be warmed to between 50 °F to 100 °F prior to painting. Only emissions from natural gas combustion are released in this step and are discussed earlier in this license.

c. SFAB Blast Line

The heated metal proceeds to the Pangborn Dry Blasting system. The system consists of a centrifugal abrasive blast machine where metal is blasted to a specified level of cleanliness. The unit is equipped with a dust collection system located outside the building.

- (1) Operations shall occur in vented enclosures controlled with filtration devices.
- (2) The SFAB Blast Line shall vent to a Panghorn dust collection system.
- (3) BIW shall keep a maintenance log recording the date and location of all routine maintenance on the SFAB Blast Line and dust collection system.

d. SFAB Paint Line/Booth

The Material proceeds into an automated spray paint booth, to be coated with a specified coating (a weldable pre-construction primer / Sigmaweld MC or equal meeting Navy specifications).

- (1) The SFAB Paint Line/Booth shall vent through a fabric filter to control particulate emissions.
- (2) BIW shall keep a maintenance log recording all routine maintenance of the SFAB Paint Line/Booth and the filter system including filter changes.
- (3) The SFAB Paint Line/Booth and spray guns shall be operated and maintained per manufacturer's recommendations.

e. SFAB Drying Oven

The painted metal is then conveyed to the SFAB Drying Oven to be dried and cured. VOC emissions from the drying paint is in addition to the Drying Oven combustion emissions. This process is subject to the facility wide VOC limit. Combustion emissions are discussed earlier in this license.

f. SFAB Production Building

The material runs on conveyors into the main production building where it is further processed (i.e., cutting, welded, heat treated, shaped) before being transported to the Main Yard in Bath. Smaller pieces of material can also be subject to blasting in the SFAB Aluminum Oxide blast booth and/or painted in the SFAB Paint Booth.

- (1) The SFAB Aluminum Oxide Blast Booth shall vent through a dust collector.
- (2) BIW shall keep a maintenance log recording all routine maintenance of the SFAB Aluminum Oxide Blast Booth and dust collector.

2. OFAB (Outfit Fabrication Facility)

BIW is organized to process raw material into finished products for shipment to storage or to the shipyard in Bath for installation. Activities at the OFAB area includes the fabrication of pipe assemblies, welding, braze and flex hose assemblies, ventilation

assemblies, outfit assemblies, custom fabricated items such as furniture and electrical panels, machinery, pipe or ventilation skids and/or rafts, intakes, and uptakes.

The facility's general layout is divided into two major process lines: one for pipe products and one for sheet metal products. However, each of these major process lines is subdivided into separate product process lines. Welding and brazing occur throughout the process lines. A small portion of parts that are manufactured in these process lines are blasted and painted using the OFAB Steel Grit Blast Booth and OFAB Paint Booths #1 and #2.

a. OFAB Steel Grit Blast Booth

- (1) The OFAB Steel Grit Blast Booth shall be equipped with a dust collection system and cartridge dust collectors to control PM emissions.
- (2) BIW shall keep a maintenance log recording all routine maintenance of the OFAB Steel Grit Blast Booth and the dust collection and filter systems, including filter changes.

b. OFAB Paint Booths #1 and #2

- (1) The OFAB Paint Booths #1 and #2 shall each be vented through fabric filters to control PM emissions.
- (2) BIW shall keep maintenance logs recording all routine maintenance of OFAB Paint Booths #1 and #2 and the fabric filter system, including filter changes.

3. PC (Powder Coat Facility)

BIW uses the PC area for a batch media blasting process and powder coating lines. The batch media blasting process is used to prepare parts for powder coating using either steel shot or aluminum oxide in one of three batch media blast systems. The first system is a batch tumble blast system using steel blasting media that will be used for small ferrous parts. This system is considered an insignificant activity and will not be addressed further. The second is a batch walk-in blast booth also using steel blasting media for larger ferrous substrates. The third, also a walk-in blast booth, will use aluminum oxide blasting media for larger, non-ferrous substrates. These systems will prepare all parts coated on the powder coating lines.

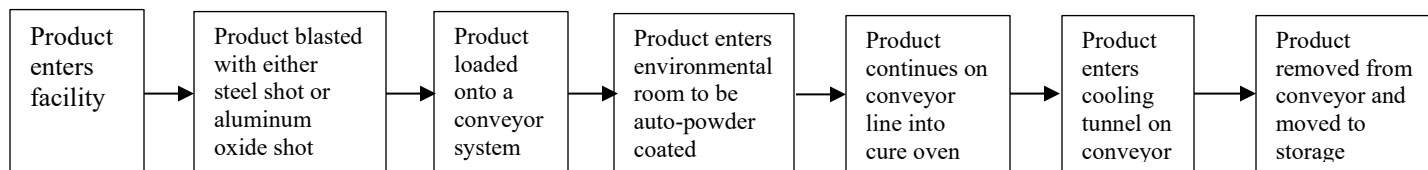
Post-blasting, the high-volume, smaller parts are transported with a continuous conveyor and coated using an automatic powder coating application system, which is enclosed in an environmental room that contains filters to remove airborne particulate matter. Once coated, the product proceeds to a dedicated process oven for curing and then sent along the conveyor to a cooling tunnel that uses filtered air from outside the plant to cool the parts before they are removed from the conveyor and sent to storage. The hooks used on the powder coating conveyor system will occasionally be sent to a burn-off oven to bake off powder coating residue that has accumulated on the hooks.

The burn-off oven has a heat input of 0.95 MMBtu/hr. The pollutants emitted from the unit while it is operating are less than 1 TPY for each pollutant and less than 4 TPY for all criteria pollutants combined. Therefore, the operation of this burn-off oven is considered an insignificant activity and will not be addressed further.

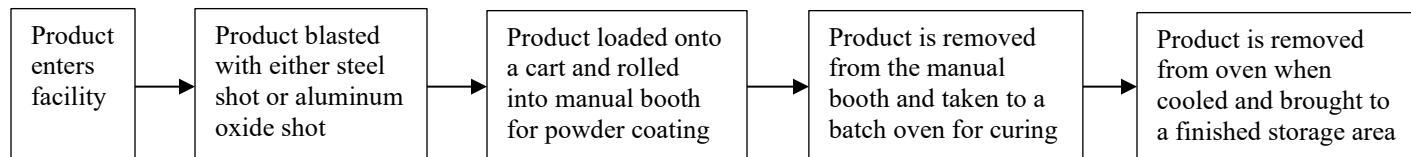
The low-volume, larger parts from the blast booths are transported on carts, coated with a batch manual powder coating application system, and then transported to a batch oven to be cured before being moved to a finished storage area. In addition to the powder coating process equipment, BIW has a separate liquid paint application booth system to apply liquid epoxy primer coatings to selected parts, which will support both the coating and drying of these parts in a batch operation. This booth has a heating system to facilitate the drying of the coated parts along with a dry filter exhaust with exhaust filter grids and paint collector pads.

The following diagrams illustrate the flow of the automated and manual coating lines:

Automated Coating Line Process Flow Diagram



Manual Coating Line Process Flow Diagram



a. PC Batch and Automated Powder Booths

- (1) The PC Batch and Automated Powder Booths shall each be vented through cartridge filters to control PM emissions.
- (2) BIW shall keep maintenance logs recording all routine maintenance of the PC Batch and Automated Powder Booths and the cartridge filter systems, including filter changes.

b. PC Paint Booth

- (1) The PC Paint Booth shall be vented through a fabric filter to control PM emissions.
- (2) BIW shall keep a maintenance log recording all routine maintenance of the PC Paint Booth and its fabric filter system, including filter changes.

c. PC Steel Grit and Aluminum Oxide Abrasive Blast Booths

- (1) The PC Steel Grit and Aluminum Oxide Abrasive Blast Booths shall each be equipped with dust collection systems and cartridge dust collectors to control PM emissions.
- (2) BIW shall keep maintenance logs recording all routine maintenance of the PC Steel Grit and Aluminum Oxide Abrasive Blast Booths and the dust collection and cartridge filter systems, including filter changes.

E. 40 C.F.R. Part 63, Subpart XXXXXX

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart XXXXXX, *National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories* requirements for the processes of welding and dry machining processes taking place in the SFAB area, PC Aluminum Oxide and Steel Grit Abrasive Blast Booths, and OFAB Steel Grit Blast Booth is listed below:

1. Notification Requirements

- a. An Initial Notification for the sources subject to this regulation at the SFAB and OFAB areas was to be submitted to EPA and the Department no later than July 25, 2011. BIW submitted these notifications to EPA and the Department on July 12, 2011 for the SFAB area, on July 8, 2011 for the OFAB area, and on July 15, 2020 for the PC area. [40 C.F.R. § 63.11519(a)(1)]
- b. A Notification of Compliance Status for sources at the SFAB and OFAB areas subject to this regulation was to be submitted to EPA and the Department. BIW submitted these notifications to EPA and the Department on July 12, 2011 for the SFAB area, on July 8, 2011 for the OFAB area, and on July 15, 2020 for the PC area [40 C.F.R. § 63.11519(a)(2)]

2. Standards and Management Practices

a. Dry Abrasive Blasting

- (1) Standards for Dry Abrasive Blasting of Objects Performed in Vented Enclosures

For any new or existing dry abrasive blasting affected source at BIW consisting of a dry abrasive blasting operation which has a vent allowing any air or blast material to escape, BIW shall comply with the following requirements [40 C.F.R. § 63.11516(a)(2)]:

- (i) BIW shall capture emissions and vent them to a filtration control device. BIW shall operate the filtration control device according to the

manufacturer's instructions, and BIW shall demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in 40 C.F.R. § 63.11519(c)(4); and

(ii) BIW shall implement the following management practices to minimize emissions of MFHAP:

1. BIW shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable;
2. BIW shall enclose abrasive material storage areas and holding bins, seal chutes, and conveyors that transport abrasive material; and
3. BIW shall operate all equipment associated with dry abrasive blasting operations according to the manufacturer's instructions.

(2) Standards for Dry Abrasive Blasting of Objects Greater than Eight Feet in Any One Dimension

For any new or existing dry abrasive blasting affected source at BIW which consists of a dry abrasive blasting operation which is performed on objects greater than eight feet in any one dimension, BIW shall comply with the following requirements [40 C.F.R. § 63.11516(a)(3)]:

(i) In addition to the management practices listed in section (ii) of the standards for dry abrasive blasting of objects performed in vented enclosures, above, BIW shall comply with the following additional management practices:

1. BIW shall not re-use dry abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size; and
2. Whenever practicable, BIW shall 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.

(ii) BIW shall perform visual determinations of fugitive emissions, as specified in 40 C.F.R. § 63.11517(b), according to the following requirements:

1. For abrasive blasting of objects greater than eight feet in any one dimension that is performed outdoors, BIW shall perform visual determinations of fugitive emissions at the fence-line or property border nearest to the outdoor dry abrasive blasting operation; and

2. For abrasive blasting of objects greater than eight feet in any one dimension that is performed indoors, BIW shall perform visual determination of fugitive emissions at the primary vent, stack, exit, or opening from the building containing the abrasive blasting operations.
3. For blasting of objects greater than eight feet where the control equipment is vented inside, the standards and requirements listed in (1) apply and the requirement for visual observations per § 63.11516 (a)(3)(ii)(A) or (B) do not apply.

(iii) BIW shall keep a record of all visual determination of fugitive emissions along with any corrective action taken in accordance with the requirements in 40 C.F.R. § 63.11519(c)(2); and

(iv) If visible fugitive emissions are detected, BIW shall perform corrective actions until the visible fugitive emissions are eliminated, at which time BIW shall comply with the following requirements:

1. BIW shall perform a follow-up inspection for visible fugitive emissions in accordance with 40 C.F.R. § 63.11517(a); and
2. BIW shall report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, with the facility's annual certification and compliance report as required by 40 C.F.R. § 63.11519(b)(5).

b. Dry Machining

For each new or existing dry machining affected source at BIW that uses materials that contain MFHAP or has the potential to emit MFHAP, the facility shall implement the following management practices to minimize emissions of MFHAP. These requirements do not apply when machining operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

- (1) BIW shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and
- (2) BIW shall operate all equipment associated with machining according to manufacturer's instructions.

[40 C.F.R. § 63.11516(b)]

c. Welding

- (1) For each new or existing welding affected source at BIW that uses materials that contain MFHAP or has the potential to emit MFHAP, the facility shall

comply with the following requirements. These requirements 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.

- (i) BIW shall operate all equipment and capture and control devices associated with welding operations according to manufacturer's instructions. BIW shall demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the capture and control devices and BIW's adherence to these specifications, as required by the requirements in 40 C.F.R. § 63.11519(c)(4); and
- (ii) BIW shall implement one or more of the following management practices to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment:
 - 1. Use welding processes with reduced fume generation capabilities (e.g., gas metal arc welding (GMAW) – also called metal inert gas welding (MIG));
 - 2. Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;
 - 3. Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation;
 - 4. Optimize welding process variables (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fumes generated; and
 - 5. Use a welding fume capture and control system, operated according to the manufacturer's specifications.

[40 C.F.R. § 63.11516(f)(1) and (2)]

- (2) If the total of the new and existing welding affected sources at BIW uses 2,000 pounds or more per year of welding rod containing one or MFHAP (calculated on a 12-month rolling total basis), BIW shall demonstrate that management practices or fume control measures are being implemented by complying with the following requirements. These requirements 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.

- (i) BIW shall perform visual determinations of welding fugitive emissions as specified in 40 C.F.R. § 63.11517(b) at the primary vent, stack, exit, or opening from the building containing the welding operations. BIW shall keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in 40 C.F.R. § 63.11519(c)(2).

(ii) If visible fugitive emissions are detected during any visual determination required by 40 C.F.R. § 63.11516(f)(3), BIW shall comply with the following requirements:

1. Perform corrective actions that include, but are not limited to, inspection of welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with 40 C.F.R. § 63.11516(f)(2). After completing such corrective actions, BIW shall perform a follow-up inspection for visible fugitive emissions in accordance with 40 C.F.R. § 63.11517(a) at the primary vent, stack, exit, or opening from the building containing the welding operations; and
2. Report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions and submit with the facility's annual certification and compliance report as required by 40 C.F.R. § 63.11519(b)(5).

(iii) If visible fugitive emissions are detected more than once during any consecutive 12-month period (notwithstanding the result of any follow-up inspections), BIW shall comply with the following requirements:

1. Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, BIW shall conduct a visual determination of emissions opacity, as specified in 40 C.F.R. § 63.11517(c) at the primary vent, stack, exit, or opening from the building containing the welding operations;
2. In lieu of the requirement of 40 C.F.R. § 63.11516(f)(3) to perform visual determinations of fugitive emissions with EPA Method 22, BIW shall perform visual determinations of emissions opacity in accordance with 40 C.F.R. § 63.11517(d), using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations;
3. BIW shall keep a record of each visual determination of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5)(i) or (ii), along with any subsequent corrective action taken, in accordance with the requirements in 40 C.F.R. § 63.11519(c)(3); and
4. BIW shall report the results of all visual determinations of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5)(i) or (ii), along with any subsequent corrective action taken, and submit with the facility's annual certification and compliance report as required by 40 C.F.R. § 63.11519(b)(6).

(iv) For each visual determination of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5) for which the average of the

six-minute average opacities recorded is 20 percent or less but greater than zero, BIW shall perform corrective actions, including inspection of all welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with 40 C.F.R. § 63.11516(f)(2).

(v) For each visual determination of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5) for which the average of the six-minute average opacities recorded exceeds 20 percent, BIW shall comply with the following requirements:

1. BIW shall submit a report of exceedance of 20 percent opacity, along with the facility's annual certification and compliance report, as specified in 40 C.F.R. § 63.11519(b)(8), and according to the requirements of 40 C.F.R. § 63.11519(b)(1);
2. Within 30 days of the opacity exceedance, BIW shall prepare and implement a Site-Specific Welding Emissions Management Plan, as specified in 40 C.F.R. § 63.11516(f)(8). If BIW has already prepared a Site-Specific Welding Emissions Management Plan in accordance with this paragraph, BIW shall prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days;
3. During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, BIW shall continue to perform visual determinations of emissions opacity, beginning on a daily schedule as specified in 40 C.F.R. § 63.11517(d), using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations;
4. BIW shall maintain records of daily visual determinations of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(7)(iii), during preparation of the Site-Specific Welding Emissions Management Plan, in accordance with the requirements in 40 C.F.R. 63.11519(b)(9); and
5. BIW shall include these records in the facility's annual certification and compliance report, according to the requirements of 40 C.F.R. § 63.11519(b)(1).

(vi) The Site-Specific Welding Emissions Management Plan must comply with the following requirements:

1. The Site-Specific Welding Emissions Management Plan must contain the following information:
 - (a) Company name and address;
 - (b) A list and description of all welding operations which currently comprise the welding affected source;

- (c) A description of all management practices and/or fume control methods in place at the time of the opacity exceedance;
 - (d) A list and description of all management practices and/or fume control method currently employed for the welding affected source;
 - (e) A description of additional management practices and/or fume control methods to be implemented pursuant to 40 C.F.R. § 63.11516(f)(7)(ii), and the projected ate of implementation; and
 - (f) Any revisions to a Site-Specific Welding Emissions Management Plan shall contain copies of all previous plan entries, pursuant to 40 C.F.R. § 63.11516(f)(8)(i)(D) and (E).
- 2. The Site-Specific Welding Emissions Management Plan shall be updated annually to contain current information, as required by 40 C.F.R. § 63.11516(f)(8)(i)(A) through (C), and submitted with the facility's annual certification and compliance report, according to the requirements of 40 C.F.R. § 63.11519(b)(1); and
 - 3. BIW shall maintain a copy of the current Site-Specific Welding Emissions Management Plan in the facility's records in a readily-accessible location for inspector review, in accordance with the requirements in 40 C.F.R. § 63.11519(c)(12).

[40 C.F.R. § 63.11516(f)(3) through (8)]

3. Monitoring Requirements

When BIW is required to conduct visual determination of fugitive emissions, they shall be conducted according to the requirements and schedule detailed below.

a. Visual Determination of Fugitive Emissions

(1) Testing Requirements

Visual determinations of fugitive emissions shall be performed according to the procedures of EPA Method 22, of 40 C.F.R. Part 60, Appendix A-7. BIW shall conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test shall be at least 15 minutes, and visible emissions shall be considered to be present if they are detected for more than six minutes of the 15-minute period. [40 C.F.R. § 63.11517(a)]

(2) Testing Schedule

Visual determinations of fugitive emissions shall be performed according to the schedule below [40 C.F.R. § 63.11517(b)(1) through (4)]:

- (i) BIW shall perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process;
- (ii) If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with 40 C.F.R. § 63.11517(b)(1) for 10 days of work day operation of the process, BIW may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, BIW shall resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with 40 C.F.R. § 63.11517(b)(1);
- (iii) If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with 40 C.F.R. § 63.11517(b)(2), BIW may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, BIW shall resume weekly EPA Method 22 in accordance with 40 C.F.R. § 63.11517(b)(2); and
- (iv) If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with 40 C.F.R. § 63.11517(b)(3), BIW may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (three calendar months). If visible fugitive emissions are detected during these tests, BIW shall resume monthly EPA Method 22 in accordance with 40 C.F.R. § 63.11517(b)(3).

b. Visual Determination of Emissions Opacity for Welding, Tier 2 or 3

(1) Testing Requirements

Visual determination of emissions opacity shall be performed in accordance with the procedures of EPA Method 9, of 40 C.F.R. Part 60, Appendix A-4. BIW shall conduct the EPA Method 9 test while the affected source is operating under normal conditions. The duration of each EPA Method 9 test shall be thirty minutes. [40 C.F.R. § 63.11517(c)]

(2) Testing Schedule

Visual determination of emissions opacity shall be performed according to the schedule below [40 C.F.R. § 63.11517(d)(1) through (5)]:

- (i) BIW shall perform visual determination of emissions opacity once per day during each day that the process is in operation;
- (ii) If the average of the six-minute opacities recorded during any of the daily consecutive EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(1) does not exceed 20 percent opacity for 10 days of operation of the process, BIW may decrease the frequency of EPA Method

9 testing to once per five days of consecutive work day operation. If opacity greater than 20 percent is detected during any of these tests, BIW shall resume testing every day of operation of the process according to the requirements of 40 C.F.R. § 63.11517(d)(1);

- (iii) If the average of the six-minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(2) does not exceed 20 percent for four consecutive weekly tests, BIW may decrease the frequency of EPA Method 9 testing to once per every 21 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any monthly test, BIW shall resume testing every five days of operation of the process according to the requirements of 40 C.F.R. § 63.11517(d)(2);
- (iv) If the average of the six-minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(3) does not exceed 20 percent for three consecutive monthly tests, BIW may decrease the frequency of EPA Method 9 testing to once per every 120 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any quarterly test, BIW shall resume testing every 21 days (month) of operation of the process according to the requirements of 40 C.F.R. § 63.11517(d)(3); and
- (v) If, after two consecutive months of testing, the average of the six-minute opacities recorded during any of the monthly EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(3) does not exceed 20 percent, BIW may resume EPA Method 22 testing as in 40 C.F.R. § 63.11517(b)(3) and (4). In lieu of this, BIW may elect to continue performing EPA Method 9 tests in accordance with 40 C.F.R. § 63.11517(d)(3) and (4).

4. Recordkeeping and Reporting Requirements

a. Recordkeeping Requirements

(1) BIW shall keep the following records relating to processes subject to 40 C.F.R. Part 63, Subpart XXXXXX:

- (i) The following general compliance and applicability records [40 C.F.R. § 63.11519(c)(1)]:
 - 1. Each notification and report BIW has submitted to comply with this subpart, and the documentation supporting each notification and report; and
 - 2. Records of the applicability determinations as in 40 C.F.R. § 63.11514(b)(1) through (5), listing equipment included in its affected source, as well as any changes to that and on what date they occurred,

must be maintained for five years and be made available for inspector review at any time.

- (ii) The following visual determination of fugitive emission records for each affected source which performs visual determination of fugitive emissions in accordance with 40 C.F.R. § 63.11517(a) [40 C.F.R. § 63.11519(c)(2)]:
 - 1. The date and results of every visual determination of fugitive emissions;
 - 2. A description of any corrective action taken subsequent to the test; and
 - 3. The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions.

 - (iii) The following visual determination of emissions opacity records for each affected source which performs visual determination of emissions opacity in accordance with 40 C.F.R. § 63.11517(c) [40 C.F.R. § 63.11519(c)(3)]:
 - 1. The date of every visual determination of emissions opacity;
 - 2. The average of the six-minute opacities measured by the test; and
 - 3. A description of any corrective action taken subsequent to the test.

 - (iv) A record of the manufacturer's specifications for the control devices used to comply with 40 C.F.R. § 63.11516. [40 C.F.R. § 63.11519(c)(4)]
 - (v) A record of each visual determination of emissions opacity performed during the preparation (or revision) of a Site-Specific Welding Emissions Management Plan in accordance with 40 C.F.R. § 63.11516(f)(7)(iii). [40 C.F.R. § 63.11519(c)(11)]
 - (vi) If BIW has been required to prepare a plan in accordance with 40 C.F.R. § 63.11516(f)(7)(iii), BIW shall maintain a copy of the current Site-Specific Welding Emissions Management Plan in the facility's records and it shall be readily available for inspector review. [40 C.F.R. § 63.11519(c)(12)]
 - (vii) If BIW complies with this subpart by operating any equipment according to manufacturer's instruction, BIW shall keep these instructions readily available for inspector review. [40 C.F.R. § 63.11519(c)(13)]
 - (viii) Records of the weight (pounds) of welding rod used by BIW that contains one or more MFHAP (on a rolling 12-month basis). These records shall be maintained on a monthly and 12-month rolling total basis. [40 C.F.R. § 63.11519(c)(14)]
- (2) These records shall be maintained according to the following requirements [40 C.F.R. § 63.11519(c)(15)(i) through (iii)]:
- (i) The records shall be in a form suitable and readily available for expeditious review, according to 40 C.F.R. § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database;

- (ii) As specified in 40 C.F.R. § 63.10(b)(1), BIW shall keep each record for five years following the date of each occurrence, measurement, corrective action, report, or record; and
- (iii) BIW shall keep each record on-site for at least two years after the date of each occurrence, measurement, corrective action, report, or record according to 40 C.F.R. § 63.10(b)(1). BIW may keep the records off-site for the remaining three years.

b. Reporting Requirements

BIW shall submit annual compliance and certification reports to EPA and the Department. These reports shall include the information and be submitted according to the schedule in the sections below. [40 C.F.R. § 63.11519(b)]

(1) Reporting Dates

BIW shall submit each annual certification and compliance report for each affected source according to the following schedule. The information reported for each of the months in the reporting period shall be based on the last 12 months of data prior to the date of each monthly calculation [40 C.F.R. § 63.11519(b)(2)]:

- (i) The first annual certification and compliance report shall cover the first annual reporting period which begins the day after the compliance date and ends on December 31;
- (ii) Each subsequent annual certification and compliance report shall cover the subsequent semiannual reporting period from January 1 through December 31;
- (iii) Each annual certification and compliance report shall be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedance has occurred during the year, each annual certification and compliance report shall be submitted along with the exceedance reports, and postmarked or delivered no later than January 31.

(2) Required Information

Each annual certification and compliance report shall contain the following information [40 C.F.R. § 63.11519(b)(4) and (5)]:

- (i) Company name and address;
- (ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
- (iii) Date of report and beginning and ending dates of the reporting period; and

(iv) For each affected source which performs visual determination of fugitive emissions in accordance with 40 C.F.R. § 63.11517(a), the following information:

1. The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
2. A description of the corrective actions taken subsequent to the test; and
3. The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.

F. 40 C.F.R. Part 63, Subpart II; National Emission Standards for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair (Surface Coating) Operations.

No provisions of 40 C.F.R. Part 63, Subpart II apply to the BIW emission sources because Subpart II applies to shipbuilding facilities which are major sources of HAP. BIW is limited to 9.9 tpy of any single HAP and 24.9 tpy of combined total HAP making this facility an area source of HAP.

G. 06-096 C.M.R. ch. 129 – Surface Coating Facilities

This regulation establishes requirements for consistent requirements for testing, evaluating, and limiting emission of volatile organic compounds (VOC) and Hazardous Air Pollutants (HAP) from selected surface coating operations. This facility applies surface coating to major marine vessel subassemblies that are exposed to the exterior of the vessel and, as such, is categorically exempted from this regulation per Section 1.E.(3)(e).

H. Industrial Cleaning Solvents

BIW uses industrial cleaning solvents in cleaning activities as those terms are defined in *Industrial Cleaning Solvents*, 06-096 C.M.R. ch. 166. Those cleaning activities include the cleaning of process equipment and paint booths. The potential to emit from these activities (before control) is less than 3.0 tons of VOC per year.

BIW shall maintain records of material purchase or use records sufficient to verify actual emissions from the cleaning activities do not exceed 3.0 ton of VOC per calendar year.

I. Parts Washers

The four parts washers unitized at BIW have design capacities of 30, 30, 5, and 5 gallons. The parts washers are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130, and records shall be kept documenting compliance.

This equipment is exempt from *Industrial Cleaning Solvents*, 06-096 C.M.R. ch. 166 pursuant to Section (3)(B).

J. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.

K. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

L. VOC RACT

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year from non-exempt equipment. VOC-emitting equipment or processes that achieve BACT for VOC and is limited to such in their air emission license is exempted in determining a facility's total VOC emissions. The amount of VOC emissions which have not been through a BACT analysis is below the applicable 40 ton/year threshold; therefore, the emissions sources at BIW are not subject to the requirements of 06-096 C.M.R. ch. 134.

[06-096 C.M.R. ch. 134 (1)(C)(2)]

M. Emission Statements

BIW is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. BIW shall maintain the following records in order to comply with this rule:

1. The amount of distillate fuel fired in Boilers #3 and #8, the SFAB Hot Air Furnace, and the SFAB Heat Treat Furnace (each) on a monthly basis;
2. The sulfur content of the distillate fuel fired in Boilers #3 and #8, the SFAB Hot Air Furnace, and the SFAB Heat Treat Furnace;
3. The amount of natural gas fired in Boilers #3, #4, #5, #5, #7, #8, the SFAB Preheat Ovens #1 and #2, the SFAB Drying Oven, the PC Cure Oven, the PC Batch Oven, and the OFAB Makeup Air Units #1 and #2 (each) on a monthly basis;
4. Calculations of the VOC and/or HAP emissions from the VOC/HAP emitting processes, including paint booths, welding, machining, blasting, solvents/thinners, etc. on a calendar year total basis; and
5. Hours each emission unit was active or operating on a monthly basis.

In reporting year 2023 and every third year thereafter, BIW shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. BIW shall pay the annual air

quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3).
[38 M.R.S. § 353-A(1-A)]

N. 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 and establishing the facility’s potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Firing 475,000 gal/yr distillate fuel in Boilers #3 and #8, the SFAB Hot Air Furnace, and the SFAB Heat Treat Furnace using the worst-case emission factors;
- Firing Boilers #3, #4, #7, #8, Furnaces #5 and #6, the SFAB Preheat Ovens #1 and #2, the SFAB Drying Oven, the PC Cure Oven, the PC Batch Oven, and the OFAB Makeup Air Units #1 and #2 continuously on natural gas and for all remaining time after all distillate fuel has been fired for applicable units;
- A facility-wide VOC limit of 46.5 tpy for all process equipment; and
- A facility wide HAP limit of 9.9 TPY for any single HAP and 24.9 TPY for combined HAP.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

| | PM | PM₁₀ | SO₂ | NO_x | CO | VOC |
|-------------------------|-------------|------------------------|-----------------------|-----------------------|-------------|-------------|
| Total distillate fuel | 7.2 | 7.2 | 0.1 | 16.1 | 1.4 | 0.3 |
| Total natural gas | 15.1 | 15.1 | 0.7 | 26.9 | 23.3 | 2.0 |
| Facility Wide VOC Limit | | | | | | 46.5 |
| Total TPY | 22.3 | 22.3 | 0.8 | 43.0 | 24.7 | 48.8 |

| 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.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require BIW to submit additional information and may require an ambient air quality impact analysis at that time.

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 A-271-71-P-R/A subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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. § 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. 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 C.F.R. 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 C.M.R. ch. 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 the written test report by the Department, or another alternative timeframe approved by the Department, 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 C.F.R. 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 C.M.R. ch. 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 license requirement. [06-096 C.M.R. ch. 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 emissions 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (16) The licensee 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. § 605). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) Fuel Burning Equipment

A. Fuel

1. Total fuel use for Boilers #3 and #8, the SFAB Hot Air Furnace, and the SFAB Heat Treat Furnace combined shall not exceed 475,000 gal/yr of distillate fuel, on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
2. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records showing the quantity, type, and percent sulfur of the fuel delivered or fuel used (if applicable). Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur

content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BPT]

4. For Boiler #8, compliance shall be demonstrated through fuel supplier certification. [40 C.F.R. § 60.48c(e)(11)]

B. BPT Findings

1. At such time as Boiler #8 no longer operates as a gas-fired unit, it shall become subject to Subpart JJJJJ as a new oil-fired boiler and shall comply with all applicable conditions of Subpart JJJJJ. [06-096 C.M.R. ch. 115, BPT]
2. Boiler #8 shall be equipped and operated with an oxygen trim system, flue gas recirculation (FGR), and low NO_x burners. [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following:

| Emission Unit | Fuel | Pollutant | lb/MMBtu | Origin and Authority |
|-------------------------|-----------------|---------------------|-----------------|-----------------------------|
| Boiler #3 | distillate fuel | PM | 0.2 | 06-096 C.M.R. ch. 115, BPT |
| | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| Boiler #8 | distillate fuel | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| | | PM ₁₀ | 0.03 | 06-096 C.M.R. ch. 115, BPT |
| | natural gas | PM/PM ₁₀ | 0.03 | 06-096 C.M.R. ch. 115, BPT |
| Furnace #5 | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| Furnace #6 | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| SFAB Heat Treat Furnace | distillate fuel | PM | 0.12 | 06-096 C.M.R. ch. 115, BPT |
| SFAB Preheat Oven #1 | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| SFAB Preheat Oven #2 | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| SFAB Drying Oven | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| OFAB Makeup Air Unit #1 | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| OFAB Makeup Air Unit #1 | natural gas | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |

D. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

| Emission Unit | Fuel | PM (lb/hr) | PM₁₀ (lb/hr) | SO₂ (lb/hr) | NO_x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|-------------------------|-----------------|-----------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------|------------------------|
| Boiler #3 | distillate fuel | 5.02 | 5.02 | 0.04 | 11.30 | 0.84 | 0.03 |
| | natural gas | 1.26 | 1.26 | 0.02 | 2.44 | 2.05 | 0.13 |
| Boiler #4 | natural gas | 0.13 | 0.13 | 0.01 | 0.25 | 0.21 | 0.01 |
| Furnace #5 | natural gas | 0.19 | 0.19 | 0.01 | 0.37 | 0.31 | 0.02 |
| Furnace #6 | natural gas | 0.19 | 0.19 | 0.01 | 0.37 | 0.31 | 0.02 |
| Boiler #7 | natural gas | 0.08 | 0.08 | 0.01 | 0.15 | 0.12 | 0.01 |
| Boiler #8 | distillate fuel | 1.26 | 0.76 | 0.04 | 2.77 | 1.01 | 0.18 |
| | natural gas | 0.76 | 0.76 | 0.03 | 0.88 | 0.25 | 0.18 |
| SFAB Heat Treat Furnace | distillate fuel | 0.60 | 0.60 | 0.01 | 0.70 | 0.21 | 0.05 |
| SFAB Hot Air Furnace | distillate fuel | 0.16 | 0.16 | -- | 0.19 | 0.05 | 0.01 |
| SFAB Preheat Oven #1 | natural gas | 0.20 | 0.20 | 0.01 | 0.40 | 0.34 | 0.02 |
| SFAB Preheat Oven #2 | natural gas | 0.20 | 0.20 | 0.01 | 0.40 | 0.34 | 0.02 |
| SFAB Drying Oven | natural gas | 0.20 | 0.20 | 0.01 | 0.40 | 0.34 | 0.02 |
| PC Cure Oven | natural gas | 0.15 | 0.15 | 0.01 | 0.28 | 0.24 | 0.02 |
| PC Batch Oven | natural gas | 0.08 | 0.08 | 0.01 | 0.16 | 0.13 | 0.01 |
| OFAB Makeup Air Unit #1 | natural gas | 0.22 | 0.22 | 0.01 | 0.42 | 0.35 | 0.02 |
| OFAB Makeup Air Unit #1 | natural gas | 0.22 | 0.22 | 0.01 | 0.42 | 0.35 | 0.02 |

E. Visible Emissions [06-096 C.M.R. ch. 115, BPT]

1. Visible emissions from any piece of fuel burning equipment listed above when firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis.
2. Visible emissions from any piece of fuel burning equipment listed above when firing natural gas shall not exceed 10% opacity on a six-minute block average basis.
3. Visible emissions from any combined stack shall not exceed 20 % opacity when one or more pieces of equipment that vent to that stack are firing distillate fuel, and shall not exceed 10 % opacity when all pieces of equipment that vent to that stack are firing natural gas.

F. 40 C.F.R. Part 60, Subpart Dc: Boiler #8

BIW shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boiler #8 including, but not limited to, the following:

1. Reporting and Recordkeeping

- a. BIW shall maintain records of the amounts of each fuel combusted during each calendar month. [40 C.F.R. § 60.48c(g)]
- b. BIW shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
 - (1) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
 - (2) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
 - (3) Any instances of excess emissions (including opacity) from Boiler #8. [40 C.F.R. § 60.48c(c)]
- c. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]

G. 40 C.F.R. Part 63, Subpart JJJJJ: Boiler #3 and Boiler #8 (as applicable)

BIW shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boiler #3 including, but not limited to, the following:
[incorporated under 06-096 C.M.R. ch. 115, BPT]

- 1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - a. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

| Boiler Category | Tune-Up Frequency |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below Boiler #3 | Every 2 years |

[40 C.F.R. § 63.11223(a) and Table 2]

- 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, not to exceed 36 months from the previous inspection. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers.

[40 C.F.R. § 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 C.F.R. § 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. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(3)]
- (4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
- (5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), 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 C.F.R. § 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 C.F.R. § 63.11223(b)(7)]

c. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and EPA upon request. The report shall contain the following information:

- (1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
- (2) A description of any corrective actions taken as part of the tune-up of the boiler; and
- (3) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

2. Compliance Report

A compliance report shall be prepared by March 1st biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- d. The following certifications, as applicable:
 - (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - (2) "No secondary materials that are solid waste were combusted in any affected unit."
 - (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

3. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:

- a. Copies of notifications and reports with supporting compliance documentation;
- b. 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;
- c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
- d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system.

[40 C.F.R. § 63.11225(a)(4)(vi)]

4. Boiler #8

If BIW switches Boiler #8 fuel that results in the applicability of a different subcategory within Subpart JJJJJ or results in the boiler becoming subject to Subpart JJJJJ because of the firing of distillate fuel outside the definition of a gas-fired unit, BIW must demonstrate compliance with the applicable requirements within 180 days of the effective date of the fuel switch. Notification of such a change must be submitted within 30 days of the change and according to § 63.11225(g). [40 C.F.R. § 63.11210(i)] Likewise, if Boiler #8 is switching out of this subpart due to a fuel change that results in the boiler meeting the definition of gas-fired boiler as defined in § 63.11237, BIW must provide notice of the date upon which the fuel switch occurred.

The fuel switch notification must identify the following:

- a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, and the date of the notice.
- b. The date upon which the fuel switch occurred.
[40 C.F.R. § 63.11225(g)]

(18) Facility Wide VOC and HAP Limits

- A. BIW shall be limited to no more than 46.5 tons/year of VOC emissions from all process equipment other than combustion byproducts on a 12-month rolling total basis. Compliance shall be based on purchase/use records and the manufacturer's data documenting the VOC content of each material. [06-096 C.M.R. ch. 115, BACT]
- B. BIW shall be limited to 9.9 tons of any single HAP and 24.9 tons of combined HAPs on a 12-month rolling total basis. Compliance shall be based on purchase/use records and the manufacturer's data documenting the HAP content of each material. [06-096 C.M.R. ch. 115, BPT]
- C. BIW shall comply with the following practices concerning solvents and coatings:
[06-096 C.M.R. ch. 115, BPT]
 1. BIW shall not use solvents to thin or reduce paint.
 2. BIW shall use coatings with lower VOC content whenever possible.
 3. BIW shall use paints with a higher solids content when approved by U.S. Navy specifications.
 4. BIW shall contain the painting of oversized items inside a building.
 5. BIW shall contain the painting of all other items to paint booths when the size will allow.
 6. BIW shall keep lids of all paint products and waste drums sealed when not in use.
 7. BIW shall perform paint gun cleaning activities to minimize evaporative losses.
 8. BIW shall maintain all required particulate control systems per manufacturer specifications.

(19) Process Equipment [06-096 C.M.R. ch. 115, BPT]

A. SFAB

1. SFAB Blast Line

- a. Operations shall occur in vented enclosures controlled with filtration devices.
- b. The SFAB Blast Line shall vent to a Panghorn dust collection system.
- c. BIW shall keep a maintenance log recording the date and location and description of all routine maintenance on the SFAB Blast Line and dust collection system.

2. SFAB Paint Line/Booth

- a. The SFAB Paint Line/Booth shall vent through a fabric filter to control particulate emissions.
- b. BIW shall keep a maintenance log recording the date and description of all routine maintenance of the SFAB Paint Line/Booth and the filter system including filter changes.
- c. The SFAB Paint Line/Booth and spray guns shall be operated and maintained per manufacturer's recommendations.

3. SFAB Aluminum Oxide Blast Booth

- a. The SFAB Aluminum Oxide Blast Booth shall vent through a dust collector.
- b. BIW shall keep a maintenance log recording all routine maintenance of the SFAB Aluminum Oxide Blast Booth and dust collector.

B. OFAB

1. OFAB Steel Grit Blast Booth

- a. The OFAB Steel Grit Blast Booth shall be equipped with a dust collection system and cartridge dust collectors to control PM emissions.
- b. BIW shall keep a maintenance log recording the date and description of all routine maintenance of the OFAB Steel Grit Blast Booth and the dust collection and filter systems, including filter changes.

2. OFAB Paint Booths #1 and #2

- a. The OFAB Paint Booths #1 and #2 shall each be vented through fabric filters to control PM emissions.

- b. BIW shall keep maintenance logs recording the date and description of all routine maintenance of OFAB Paint Booths #1 and #2 and the fabric filter system, including filter changes.

C. PC

1. PC Batch and Automated Powder Booths

- a. The PC Batch and Automated Powder Booths shall each be vented through cartridge filters to control PM emissions.
- b. BIW shall keep maintenance logs recording the date and description of all routine maintenance of the PC Batch and Automated Powder Booths and the cartridge filter systems, including filter changes.

2. PC Paint Booth

- a. The PC Paint Booth shall be vented through a fabric filter to control PM emissions.
- b. BIW shall keep a maintenance log recording the date and description of all routine maintenance of the PC Paint Booth and its fabric filter system, including filter changes.

3. PC Steel Grit and Aluminum Oxide Abrasive Blast Booths

- a. The PC Steel Grit and Aluminum Oxide Abrasive Blast Booths shall each be equipped with dust collection systems and cartridge dust collectors to control PM emissions.
- b. BIW shall keep maintenance logs recording the date and description of all routine maintenance of the PC Steel Grit and Aluminum Oxide Abrasive Blast Booths and the dust collection and cartridge filter systems, including filter changes.

(20) **40 C.F.R. Part 63, Subpart XXXXXX**

A. Standards and Management Practices

1. Dry Abrasive Blasting

- a. Standards for Dry Abrasive Blasting of Objects Performed in Vented Enclosures

For any new or existing dry abrasive blasting affected source at BIW consisting of a dry abrasive blasting operation which has a vent allowing any air or blast material to escape, BIW shall comply with the following requirements [40 C.F.R. § 63.11516(a)(2)]:

- (1) BIW shall capture emissions and vent them to a filtration control device. BIW shall operate the filtration control device according to the manufacturer's instructions, and BIW shall demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in 40 C.F.R. § 63.11519(c)(4); and
- (2) BIW shall implement the following management practices to minimize emissions of MFHAP:
 - (i) BIW shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable;
 - (ii) BIW shall enclose abrasive material storage areas and holding bins, seal chutes, and conveyors that transport abrasive material; and
 - (iii) BIW shall operate all equipment associated with dry abrasive blasting operations according to the manufacturer's instructions.

b. Standards for Dry Abrasive Blasting of Objects Greater than Eight Feet in Any One Dimension

For any new or existing dry abrasive blasting affected source at BIW which consists of a dry abrasive blasting operation which is performed on objects greater than eight feet in any one dimension, BIW shall comply with the following requirements [40 C.F.R. § 63.11516(a)(3)]:

- (1) In addition to the management practices listed in section (ii) of the standards for dry abrasive blasting of objects performed in vented enclosures, above, BIW shall comply with the following additional management practices:
 - (i) BIW shall not re-use dry abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size; and
 - (ii) Whenever practicable, BIW shall 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.
- (2) BIW shall perform visual determinations of fugitive emissions, as specified in 40 C.F.R. § 63.11517(b), according to the following requirements:
 - (i) For abrasive blasting of objects greater than eight feet in any one dimension that is performed outdoors, BIW shall perform visual

determinations of fugitive emissions at the fence-line or property border nearest to the outdoor dry abrasive blasting operation; and

(ii) For abrasive blasting of objects greater than eight feet in any one dimension that is performed indoors, BIW shall perform visual determination of fugitive emissions at the primary vent, stack, exit, or opening from the building containing the abrasive blasting operations.

(iii) For blasting of objects greater than eight feet where the control equipment is vented inside, the standards and requirements listed in (1) apply and the requirement for visual observations per § 63.11516 (a)(3)(ii)(A) or (B) do not apply.

(3) BIW shall keep a record of all visual determination of fugitive emissions along with any corrective action taken in accordance with the requirements in 40 C.F.R. § 63.11519(c)(2); and

(4) If visible fugitive emissions are detected, BIW shall perform corrective actions until the visible fugitive emissions are eliminated, at which time BIW shall comply with the following requirements:

(i) BIW shall perform a follow-up inspection for visible fugitive emissions in accordance with 40 C.F.R. § 63.11517(a); and

(ii) BIW shall report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, with the facility's annual certification and compliance report as required by 40 C.F.R. § 63.11519(b)(5).

2. Dry Machining

a. BIW shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

b. BIW shall operate all equipment associated with machining according to manufacturer's instructions.

[40 C.F.R. § 63.11516(b)]

3. Welding

a. For each new or existing welding affected source at BIW that uses materials that contain MFHAP or has the potential to emit MFHAP, the facility shall comply with the following requirements. These requirements 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.

- (1) BIW shall operate all equipment and capture and control devices associated with welding operations according to manufacturer's instructions. BIW shall demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the capture and control devices and BIW's adherence to these specifications, as required by the requirements in 40 C.F.R. § 63.11519(c)(4); and
 - (2) BIW shall implement one or more of the following management practices 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 (MIG));
 - (ii) Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;
 - (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 (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fumes generated; and
 - (v) Use a welding fume capture and control system, operated according to the manufacturer's specifications.
- [40 C.F.R. § 63.11516(f)(1) and (2)]
- b. If the total of the new and existing welding affected sources at BIW uses 2,000 pounds or more per year of welding rod containing one or MFHAP (calculated on a 12-month rolling total basis), BIW shall demonstrate that management practices or fume control measures are being implemented by complying with the following requirements. These requirements 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.
 - (1) BIW shall perform visual determinations of welding fugitive emissions as specified in 40 C.F.R. § 63.11517(b) at the primary vent, stack, exit, or opening from the building containing the welding operations. BIW shall keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in 40 C.F.R. § 63.11519(c)(2).
 - (2) If visible fugitive emissions are detected during any visual determination required by 40 C.F.R. § 63.11516(f)(3), BIW shall comply with the following requirements:

- (i) Perform corrective actions that include, but are not limited to, inspection of welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with 40 C.F.R. § 63.11516(f)(2). After completing such corrective actions, BIW shall perform a follow-up inspection for visible fugitive emissions in accordance with 40 C.F.R. § 63.11517(a) at the primary vent, stack, exit, or opening from the building containing the welding operations; and
 - (ii) Report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions and submit with the facility's annual certification and compliance report as required by 40 C.F.R. § 63.11519(b)(5).
- (3) If visible fugitive emissions are detected more than once during any consecutive 12-month period (notwithstanding the result of any follow-up inspections), BIW shall comply with the following requirements: [40 C.F.R. § 63.11516(f)(5)]
- (i) Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, BIW shall conduct a visual determination of emissions opacity as specified in 40 C.F.R. § 63.11517(c) using Method 9 of [40 C.F.R. Part 60, Appendix A](#) at the primary vent, stack, exit, or opening from the building containing the welding operations;
 - (ii) In lieu of the requirement of 40 C.F.R. § 63.11516(f)(3) to perform visual determinations of fugitive emissions with EPA Method 22, BIW shall perform visual determinations of emissions opacity in accordance with 40 C.F.R. § 63.11517(d), using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations;
 - (iii) BIW shall keep a record of each visual determination of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5)(i) or (ii), along with any subsequent corrective action taken, in accordance with the requirements in 40 C.F.R. § 63.11519(c)(3); and
 - (iv) BIW shall report the results of all visual determinations of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5)(i) or (ii), along with any subsequent corrective action taken, and submit with the facility's annual certification and compliance report as required by 40 C.F.R. § 63.11519(b)(6).
- (4) For each visual determination of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5) for which the average of the six-minute average opacities recorded is 20 percent or less but greater than zero, BIW shall perform corrective actions, including inspection of all

welding fume sources and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with 40 C.F.R. § 63.11516(f)(2).

- (5) For each visual determination of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(5) for which the average of the six-minute average opacities recorded exceeds 20 percent, BIW shall comply with the following requirements:
- (i) BIW shall submit a report of exceedance of 20 percent opacity, along with the facility's annual certification and compliance report, as specified in 40 C.F.R. § 63.11519(b)(8), and according to the requirements of 40 C.F.R. § 63.11519(b)(1);
 - (ii) Within 30 days of the opacity exceedance, BIW shall prepare and implement a Site-Specific Welding Emissions Management Plan, as specified in 40 C.F.R. § 63.11516(f)(8). If BIW has already prepared a Site-Specific Welding Emissions Management Plan in accordance with this paragraph, BIW shall prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days;
 - (iii) During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, BIW shall continue to perform visual determinations of emissions opacity, beginning on a daily schedule as specified in 40 C.F.R. § 63.11517(d), using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations;
 - (iv) BIW shall maintain records of daily visual determinations of emissions opacity performed in accordance with 40 C.F.R. § 63.11516(f)(7)(iii), during preparation of the Site-Specific Welding Emissions Management Plan, in accordance with the requirements in 40 C.F.R. § 63.11519(b)(9); and
 - (v) BIW shall include these records in the facility's annual certification and compliance report, according to the requirements of 40 C.F.R. § 63.11519(b)(1).
- (6) The Site-Specific Welding Emissions Management Plan must comply with the following requirements:
- (i) The Site-Specific Welding Emissions Management Plan must contain the following information:
 - (a) Company name and address;
 - (b) A list and description of all welding operations which currently comprise the welding affected source;
 - (c) A description of all management practices and/or fume control methods in place at the time of the opacity exceedance;

- (d) A list and description of all management practices and/or fume control method currently employed for the welding affected source;
- (e) A description of additional management practices and/or fume control methods to be implemented pursuant to 40 C.F.R. § 63.11516(f)(7)(ii), and the projected ate of implementation; and
- (f) Any revisions to a Site-Specific Welding Emissions Management Plan shall contain copies of all previous plan entries, pursuant to 40 C.F.R. § 63.11516(f)(8)(i)(D) and (E).

(ii) The Site-Specific Welding Emissions Management Plan shall be updated annually to contain current information, as required by 40 C.F.R. § 63.11516(f)(8)(i)(A) through (C), and submitted with the facility's annual certification and compliance report, according to the requirements of 40 C.F.R. § 63.11519(b)(1); and

(iii) BIW shall maintain a copy of the current Site-Specific Welding Emissions Management Plan in the facility's records in a readily-accessible location for inspector review, in accordance with the requirements in 40 C.F.R. § 63.11519(c)(12).

[40 C.F.R. § 63.11516(f)(3) through (8)]

B. Monitoring Requirements

1. Visual Determination of Fugitive Emissions

a. Testing Requirements

Visual determinations of fugitive emissions shall be performed according to the procedures of EPA Method 22, of 40 C.F.R. Part 60, Appendix A-7. BIW shall conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test shall be at least 15 minutes, and visible emissions shall be considered to be present if they are detected for more than six minutes of the 15-minute period.

[40 C.F.R. § 63.11517(a)]

b. Testing Schedule

Visual determinations of fugitive emissions shall be performed according to the schedule below [40 C.F.R. § 63.11517(b)(1) through (4)]:

- (1) BIW shall perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process;
- (2) If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with 40 C.F.R. § 63.11517(b)(1) for 10 days of work day operation of the process, BIW may decrease the frequency of EPA Method 22 testing to once every five days of operation

of the process (one calendar week). If visible fugitive emissions are detected during these tests, BIW shall resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with 40 C.F.R. § 63.11517(b)(1);

- (3) If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with 40 C.F.R. § 63.11517(b)(2), BIW may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, BIW shall resume weekly EPA Method 22 in accordance with 40 C.F.R. § 63.11517(b)(2); and
- (4) If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with 40 C.F.R. § 63.11517(b)(3), BIW may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (three calendar months). If visible fugitive emissions are detected during these tests, BIW shall resume monthly EPA Method 22 in accordance with 40 C.F.R. § 63.11517(b)(3).

2. Visual Determination of Emissions Opacity for Welding, Tier 2 or 3

a. Testing Requirements

Visual determination of emissions opacity shall be performed in accordance with the procedures of EPA Method 9, of 40 C.F.R. Part 60, Appendix A-4. BIW shall conduct the EPA Method 9 test while the affected source is operating under normal conditions. The duration of each EPA Method 9 test shall be thirty minutes. [40 C.F.R. § 63.11517(c)]

b. Testing Schedule

Visual determination of emissions opacity shall be performed according to the schedule below [40 C.F.R. § 63.11517(d)(1) through (5)]:

- (1) BIW shall perform visual determination of emissions opacity once per day during each day that the process is in operation;
- (2) If the average of the six-minute opacities recorded during any of the daily consecutive EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(1) does not exceed 20 percent opacity for 10 days of operation of the process, BIW may decrease the frequency of EPA Method 9 testing to once per five days of consecutive work day operation. If opacity greater than 20 percent is detected during any of these tests, BIW shall resume testing every day of operation of the process according to the requirements of 40 C.F.R. § 63.11517(d)(1);
- (3) If the average of the six-minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with

40 C.F.R. § 63.11517(d)(2) does not exceed 20 percent for four consecutive weekly tests, BIW may decrease the frequency of EPA Method 9 testing to once per every 21 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any monthly test, BIW shall resume testing every five days of operation of the process according to the requirements of 40 C.F.R. § 63.11517(d)(2);

- (4) If the average of the six-minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(3) does not exceed 20 percent for three consecutive monthly tests, BIW may decrease the frequency of EPA Method 9 testing to once per every 120 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any quarterly test, BIW shall resume testing every 21 days (month) of operation of the process according to the requirements of 40 C.F.R. § 63.11517(d)(3); and
- (5) If, after two consecutive months of testing, the average of the six-minute opacities recorded during any of the monthly EPA Method 9 tests performed in accordance with 40 C.F.R. § 63.11517(d)(3) does not exceed 20 percent, BIW may resume EPA Method 22 testing as in 40 C.F.R. § 63.11517(b)(3) and (4). In lieu of this, BIW may elect to continue performing EPA Method 9 tests in accordance with 40 C.F.R. § 63.11517(d)(3) and (4).

C. Recordkeeping and Reporting Requirements

1. Recordkeeping Requirements

- a. BIW shall keep the following records relating to processes subject to 40 C.F.R. Part 63, Subpart XXXXXX:

- (1) The following general compliance and applicability records [40 C.F.R. § 63.11519(c)(1)]:

- (i) Each notification and report BIW has submitted to comply with this subpart, and the documentation supporting each notification and report; and
- (ii) Records of the applicability determinations as in 40 C.F.R. § 63.11514(b)(1) through (5), listing equipment included in its affected source, as well as any changes to that and on what date they occurred, must be maintained for five years and be made available for inspector review at any time.

- (2) The following visual determination of fugitive emission records for each affected source which performs visual determination of fugitive emissions in accordance with 40 C.F.R. § 63.11517(a) [40 C.F.R. § 63.11519(c)(2)]:

- (i) The date and results of every visual determination of fugitive emissions;
 - (ii) A description of any corrective action taken subsequent to the test; and
 - (iii) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions.
- (3) The following visual determination of emissions opacity records for each affected source which performs visual determination of emissions opacity in accordance with 40 C.F.R. § 63.11517(c) [40 C.F.R. § 63.11519(c)(3)]:
- (i) The date of every visual determination of emissions opacity;
 - (ii) The average of the six-minute opacities measured by the test; and
 - (iii) A description of any corrective action taken subsequent to the test.
- (4) A record of the manufacturer's specifications for the control devices used to comply with 40 C.F.R. § 63.11516. [40 C.F.R. § 63.11519(c)(4)]
- (5) A record of each visual determination of emissions opacity performed during the preparation (or revision) of a Site-Specific Welding Emissions Management Plan in accordance with 40 C.F.R. § 63.11516(f)(7)(iii). [40 C.F.R. § 63.11519(c)(11)]
- (6) If BIW has been required to prepare a plan in accordance with 40 C.F.R. § 63.11516(f)(7)(iii), BIW shall maintain a copy of the current Site-Specific Welding Emissions Management Plan in the facility's records and it shall be readily available for inspector review. [40 C.F.R. § 63.11519(c)(12)]
- (7) If BIW complies with this subpart by operating any equipment according to manufacturer's instruction, BIW shall keep these instructions readily available for inspector review. [40 C.F.R. § 63.11519(c)(13)]
- (8) Records of the weight (pounds) of welding rod used by BIW that contains one or more MFHAP (on a rolling 12-month basis). These records shall be maintained on a monthly and 12-month rolling total basis. [40 C.F.R. § 63.11519(c)(14)]
- b. These records shall be maintained according to the following requirements [40 C.F.R. § 63.11519(c)(15)(i) through (iii)]:
- (1) The records shall be in a form suitable and readily available for expeditious review, according to 40 C.F.R. § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database;
 - (2) As specified in 40 C.F.R. § 63.10(b)(1), BIW shall keep each record for five years following the date of each occurrence, measurement, corrective action, report, or record; and
 - (3) BIW shall keep each record on-site for at least two years after the date of each occurrence, measurement, corrective action, report, or record according to 40 C.F.R. § 63.10(b)(1). BIW may keep the records off-site for the remaining three years.

2. Reporting Requirements

BIW shall submit annual compliance and certification reports to EPA and the Department. These reports shall include the information and be submitted according to the schedule in the sections below. [40 C.F.R. § 63.11519(b)]

a. Reporting Dates

BIW shall submit each annual certification and compliance report for each affected source according to the following schedule. The information reported for each of the months in the reporting period shall be based on data of the last 12 months prior to the date of each monthly calculation.
[40 C.F.R. § 63.11519(b)(2)]:

- (1) The first annual certification and compliance report shall cover the first annual reporting period which begins the day after the compliance date and ends on December 31;
- (2) Each subsequent annual certification and compliance report shall cover the subsequent semiannual reporting period from January 1 through December 31;
- (3) Each annual certification and compliance report shall be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedance has occurred during the year, each annual certification and compliance report shall be submitted along with the exceedance reports, and postmarked or delivered no later than January 31.

b. Required Information

Each annual certification and compliance report shall contain the following information [40 C.F.R. § 63.11519(b)(4) and (5)]:

- (1) Company name and address;
- (2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
- (3) Date of report and beginning and ending dates of the reporting period; and
- (4) For each affected source which performs visual determination of fugitive emissions in accordance with 40 C.F.R. § 63.11517(a), the following information:
 - (i) The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
 - (ii) A description of the corrective actions taken subsequent to the test; and
 - (iii) The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.

(21) **Industrial Cleaning Solvents**

BIW shall maintain records of material purchase or use records sufficient to verify actual emissions from the cleaning activities do not exceed 3.0 ton of VOC per calendar year. [06-096 C.M.R. ch. 166, § 5(B)]

(22) **Parts Washers**

Parts washers at BIW are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

- A. BIW shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 115, BPT]
- B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130 [06-096 C.M.R. ch. 130]:
1. Solvent cleaners using less than two liters (68 oz.) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
 2. Wipe cleaning; and,
 3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.
1. BIW shall attach a permanent conspicuous label to each unit summarizing the following operational standards:
 - a. Waste solvent shall be collected and stored in closed containers.
 - b. 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.
 - c. 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.
 - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
 - f. 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.

- g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - h. Work area fans shall not blow across the opening of the parts washer unit.
 - i. 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.
 3. Each parts washer shall be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent.
- [06-096 C.M.R. ch. 130]

(23) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

(24) General Process Sources

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

(25) Annual Emission Statements

- A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, BIW shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.
 - B. BIW shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:
 1. The amount of distillate fuel fired in Boilers #3 and #8, the SFAB Hot Air Furnace, and the SFAB Heat Treat Furnace (each) on a monthly basis;
 2. The sulfur content of the distillate fuel fired in Boilers #3 and #8, the SFAB Hot Air Furnace, and the SFAB Heat Treat Furnace;
 3. The amount of natural gas fired in Boilers #3, #4, #5, #5, #7, #8, the SFAB Preheat Ovens #1 and #2, the SFAB Drying Oven, the PC Cure Oven, the PC Batch Oven, and the OFAB Makeup Air Units #1 and #2 (each) on a monthly basis;
 4. Calculations of the VOC and/or HAP emissions from the VOC/HAP emitting processes, including paint booths, welding, machining, blasting, solvents/thinners, etc. on a calendar year total basis; and
 5. Hours each emission unit was active or operating on a monthly basis.
- [06-096 C.M.R. ch. 137]

- C. In reporting year 2023 and every third year thereafter, BIW shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). BIW shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]
- (26) If the Department determines that any parameter value pertaining to construction and operation of the proposed emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, BIW may be required to submit additional information. Upon written request from the Department, BIW shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter. [06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 13th DAY OF MARCH, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 12/2/22

Date of application acceptance: 12/2/22

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

