

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

A086243121

FACILITY: SAYLOR BEALL MFG CO INC		SRN / ID: A0862
LOCATION: 400 N KIBBEE, SAINT JOHNS		DISTRICT: Lansing
CITY: SAINT JOHNS		COUNTY: CLINTON
CONTACT: Debbie Kares , VP of Manufacturing/Plant Supervisor		ACTIVITY DATE: 01/09/2018
STAFF: Julie Brunner	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled compliance inspection of the facility		
RESOLVED COMPLAINTS:		

On January 9, 2018, I conducted an unannounced, scheduled inspection of Saylor-Beall Manufacturing Company located on 400 N. Kibbee Street in Saint Johns. The last inspection was on March 16, 2012.

Contact:

Debbie Kares, VP of Manufacturing/Plant Manager, 1-800-248-9001 ext. 231, debbie@saylor-beall.com

Facility Description:

Since 1915, Saylor-Beall Manufacturing Company (Saylor-Beall) has manufactured industrial quality, two stage air compressors at the Saints Johns plant. The Saylor-Beall Plant manufacturing facility uses eight computer numerically controlled machining centers to form our cylinders, crankshafts, connecting rods, crankcases, cylinder heads, intercoolers and manifolds as well as other parts that make air compressor pumps. Saylor-Beall assembles industrial quality air compressors. Casted or forged components such as compressor heads, crankshafts, and connecting rods are purchased to a specification and machined to a final tolerance. Saylor-Beall also purchases welded compressor tanks that are ASME certified for pressurization. Along with the machining processes; welding, aqueous cleaning, and paint coating is performed.

Saylor-Beall is located on the east side of Saint Johns on the edge of a residential area. To the south are a rail line, greenhouse and cemetery. To the east is agricultural land. The north and west is primarily residential.

Saylor-Beall is a minor source. In 2001, Saylor-Beall voided out three (3) permits for installed emission units that could operate in compliance with specific exemptions. At that time, the AQD inspector confirmed the appropriateness of the exemptions and permit voids.

Michigan Air Emissions Reporting System (MAERS):

The facility does not have to report to MAERS.

Inspection:

Arrived: 9:00 am

Departed: 10:30 am

Weather: 19°F, wind S @ 1 MPH, UV 0 Low

No visible emissions (VEs) were observed from any of the facility exhaust stacks upon arrival. No odors were identified surrounding the facility.

A pre-inspection meeting was conducted with Ms. Debbie Kares, VP and Plant Manager. The facility operations were discussed.

Plant Capacity: 90%

Staff #: 30 Shifts/Day: 1 (5:00 am to 5:30 pm) Days of Operation/Week: 5 days/week

There are no emergency generators, and the facility is heated by natural gas-fired heaters (exemption Rule 282(2)(b)(i)).

The basic manufacturing process is some metal castings come in machined, are then washed and then go to assembly. Some parts come in and go directly to assembly. In assembly, the compressor pumps are hand constructed.

Parts Washers, Exemption Rule 285(2)(r)(iv) -

Casted or forged metal parts that are received, and after machining, are washed using a water-based detergent to remove oils, and then a rust inhibitor is applied. The facility has a new automated parts washer where the parts are placed on a chain link belt which takes the parts through the enclosed washing sections and an electric heated (~140°F) drying area. A mist eliminator (filters) is on the unit which vents steam from the unit into the plant. A small wash unit sits beside it that does small harder to wash parts. It uses the same wash materials as the large unit. (Pictures are attached.) It is estimated that around 70 gallons per year of detergent and 30 gallons per year of rust inhibitor will be used in the units. Rule 285(2)(r)(iv) exempts metal cleaning where the emissions are released into the general in plant environment.

Metal Machining Processes, Exemption Rule 285(2)(l)(vi) –

In the production areas, metal machining includes several metal milling machines that vent into the plant interior including a Mazak horizontal mill with mist collectors. There are two (2) turning machines with filters. One turning machine has an external exhaust, and the other has an internal exhaust. A crank shaft grinder with hood has an external exhaust vent. The grinder is a wet process therefore no emissions are actually vented to the outside. A Warner & Swasey lathe with mist collector sitting on top is also used, and vents inside of the plant. The mist collectors are checked daily and changed if dirty. A band saw is located in the pump assembly area and is used for construction of belt covers. Rule 285(2)(l)(vi) exempts equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete, rubber, paper board, wood, wood products, stone, glass, fiberglass, or fabric which meets any of the following:

(A) Equipment used on a nonproduction basis.

(B) Equipment that has emissions that are released only into the general in-plant environment.

(C) Equipment that has externally vented emissions controlled by an appropriately designed and operated fabric filter collector that, for all specified operations with metal, is preceded by a mechanical precleaner

In the maintenance area is various metal machining equipment also exempt per Rule 285(2)(l)(vi).

Paint Booth, Exemption Rule 287(2)(c) –

A three-sided dry filter paint booth with external exhaust is used for coating of compressor pump assemblies. An air assisted airless spray gun is used to manually apply paint coatings. A change was made to water-based paint coatings about a year ago. Water is used for clean-up. The dry filters are changed at least once per week or when needed. The filters were in good shape at the time of inspection. The paint booth and coating equipment are operated under exemption Rule 287(2)(c); A surface coating line if all of the following conditions are met:

(i) The coating use rate is not more than 200 gallons, as applied, minus water, per month.

(ii) Any exhaust system that serves only coating spray equipment is supplied with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.

(iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the department upon request.

Welding, Exemption Rule 285(2)(i) -

A small amount of spot welding of small parts/brackets to the compressor pump assembly is done. Rule 285(2)(i) exempts any brazing, soldering, welding, or plasma coating equipment.

In the March 16, 2012 inspection report, it was mentioned that Saylor-Beall could be subject to 40 CFR 63, Subpart XXXXXX, National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Area Source Categories. The state does not have delegated authority for this regulation, and therefore, does not inspect for it. As a note, the facility is subject if they are primarily engaged in an operation that is defined in 40 CFR 63.11522 for the following source categories (Table 1 of 40 CFR 63, Subpart XXXXXX has the complete description):

- (1) Electrical and Electronic Equipment Finishing Operations;
- (2) Fabricated Metal Products;
- (3) Fabricated Plate Work (Boiler Shops);
- (4) Fabricated Structural Metal Manufacturing;

- (5) Heating Equipment, except Electric;
- (6) Industrial Machinery and Equipment Finishing Operations;
- (7) Iron and Steel Forging;
- (8) Primary Metal Products Manufacturing; and
- (9) Valves and Pipe Fittings.

Establishments primarily engaged in manufacturing general purpose air and gas compressors aren't specifically listed.

Records Review:

The paint usage records and Safety Data Sheets (SDS) for the washer materials and paint coatings were provided. (attached)

Paint usage is estimated based on the amount purchased and the date of delivery. The volumes below do include water.

April 2017 – 100 gallons

May 2017 – 100 gallons

June 2017 – 50 gallons

July 2017 – 100 gallons

August 2017 – 50 gallons

September 2017 – 100 gallons

October 2017 - 60 gallons

November 2017 - 100 gallons

December 2017 - 100 gallons

Paint usage is below the 200 gallons per month allowed in exemption Rule 287(2)(c).

Summary:

The facility appeared to be in compliance with the applicable rules and regulations.



Image 1(1) : Outlet of the automated parts washer

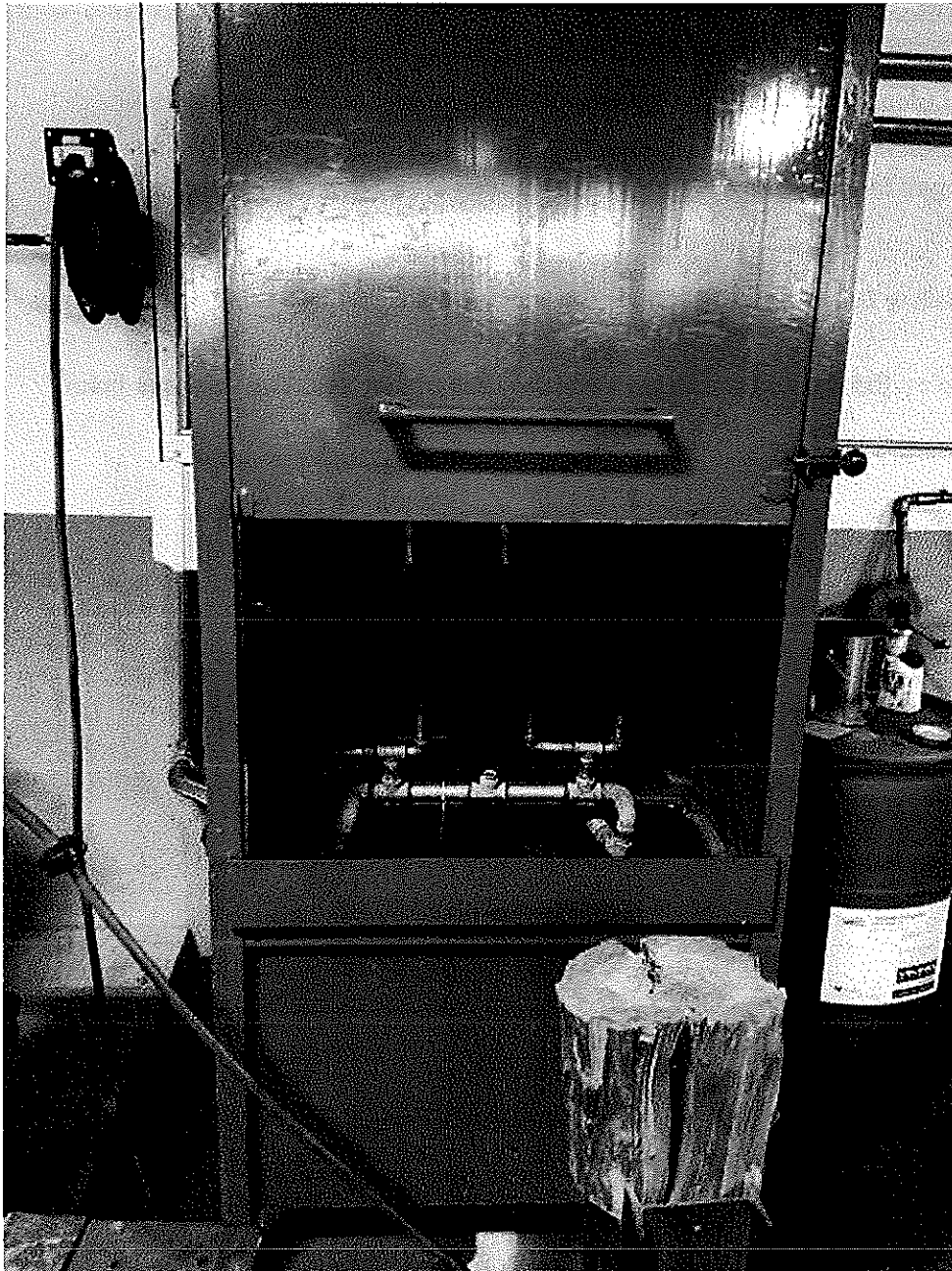


Image 2(2) : Small manual parts washer



Image 3(3) : Turning machine with external vent.

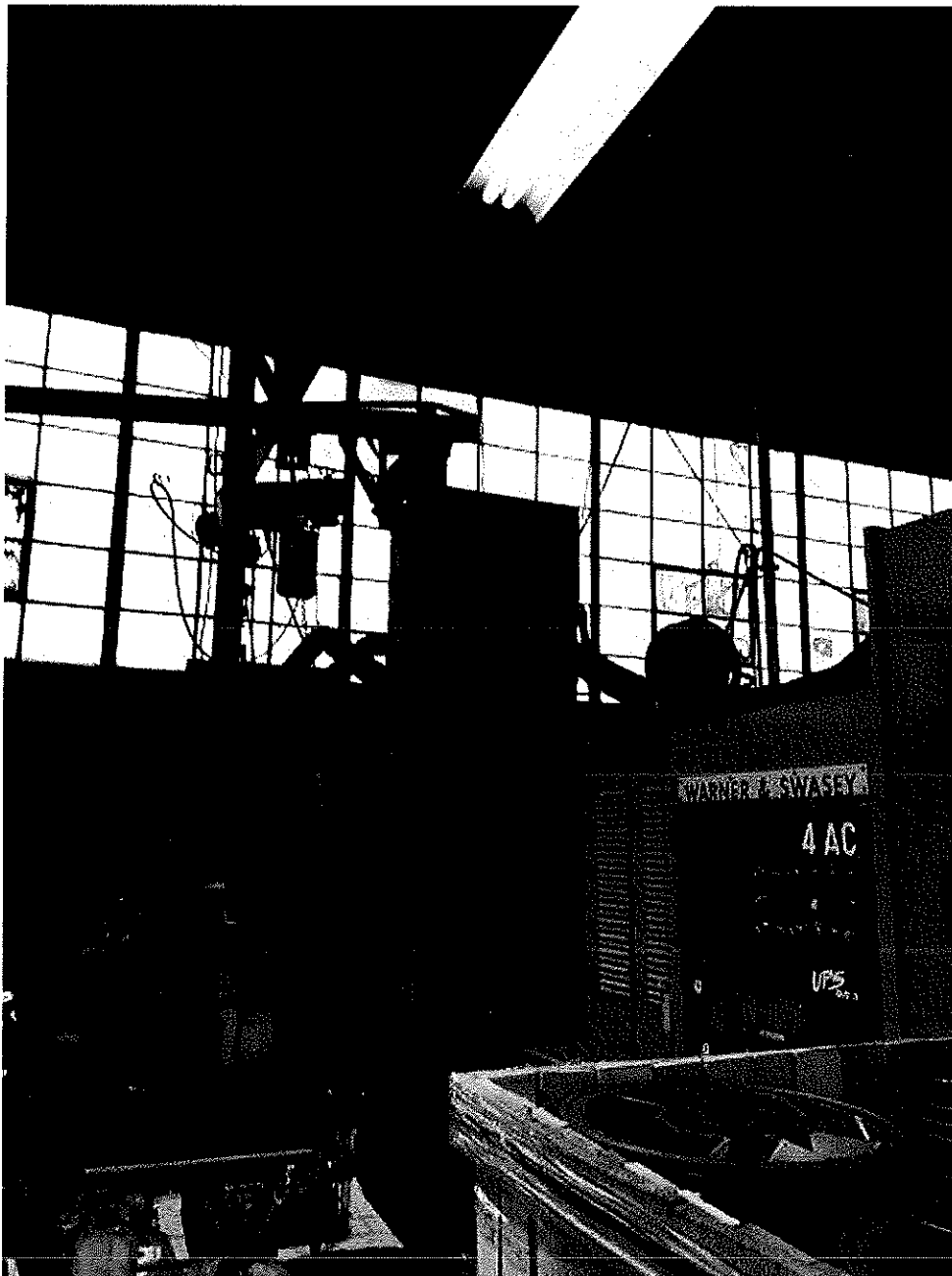


Image 4(4) : Turning machine with internal filtration

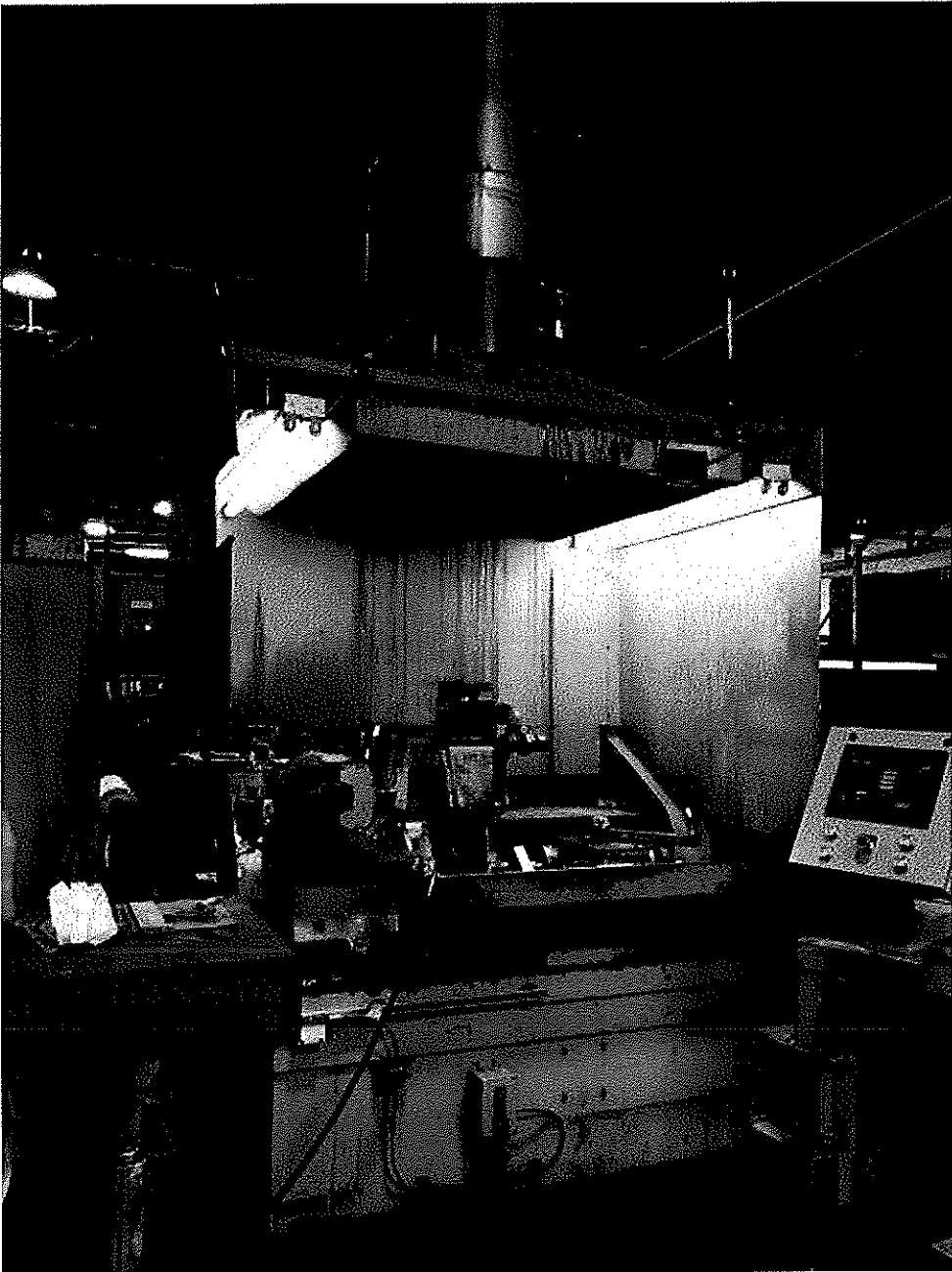


Image 5(5) : Crank shaft grinder

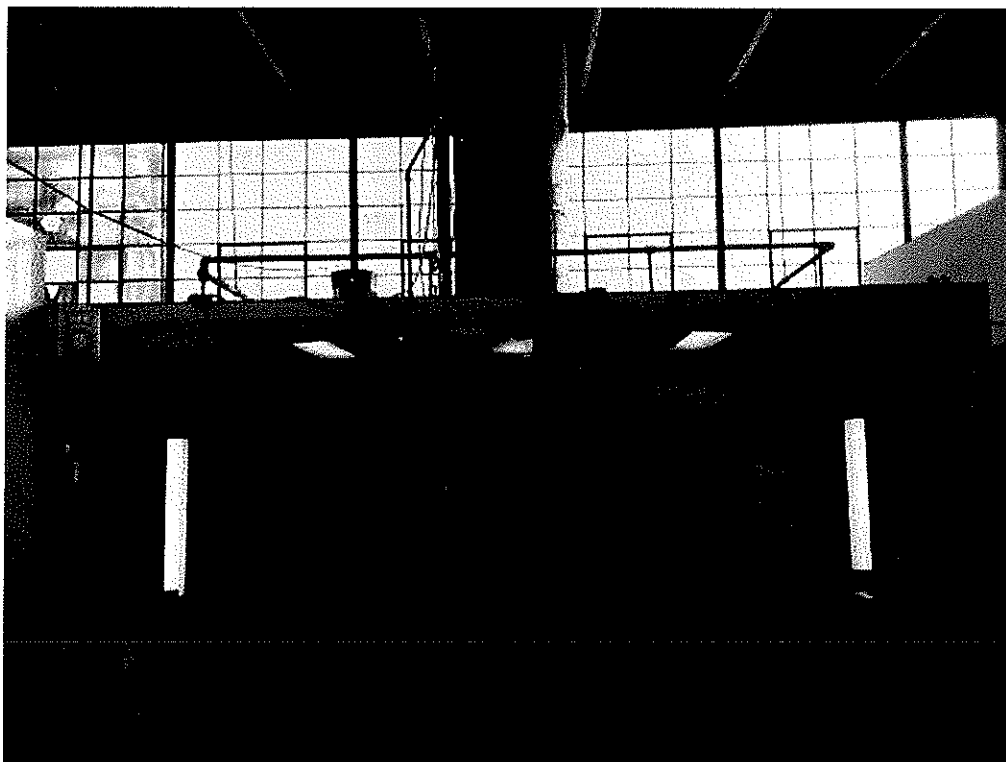


Image 6(6) : Paint booth

NAME Julie L. Burr

DATE 1/25/18

SUPERVISOR B.M.