

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

A163762346

FACILITY: Pratt & Whitney AutoAir		SRN / ID: A1637
LOCATION: 5640 ENTERPRISE DR, LANSING		DISTRICT: Lansing
CITY: LANSING		COUNTY: INGHAM
CONTACT: Christina Robedeau , Site EHS Manager		ACTIVITY DATE: 03/28/2022
STAFF: Matthew Karl	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site Inspection to determine compliance with PTI No. 40-03.		
RESOLVED COMPLAINTS:		

District Inspector: Matt Karl

Facility Contact: Christina Robedeau, Site EHS Manager

Facility Consultant: Michele Strickland, Staff Consultant

Purpose:

The purpose of the inspection was to determine compliance with the Federal Clean Air Act (CAA); Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes and Energy- Air Quality Division (EGLE-AQD) Administrative Rules and Permit to Install (PTI) No. 40-03.

Facility Background:

Pratt & Whitney AutoAir, Inc. is located at 5640 Enterprise Drive, Lansing, Michigan 48911. The facility is involved in fabricating, coating, and repairing parts for commercial and military aircraft. The facility consists of four (4) plant buildings that are all considered part of the same stationary source. The facility is permitted as a CAA Part 70 Title V program major source opt-out, which means PTI No. 40-03 contains enforceable emission limits to keep the facility below major source emission thresholds. Flexible group FGFACILITY contains conditions for all equipment at the stationary source including all equipment covered by other permits, grandfathered equipment, and exempt equipment. The facility has the following types of equipment: coating booths, alkaline phosphate metal surface treatment, power wash cleaning, shotblasting, grinding, abrasive cutting, cold cleaners and ovens.

On-site Inspection Monday (3/28/22):

Plant 1:

Description: Plant 1 is typically used for the manufacturing of new engine SGV's as well as reworking of used SGV's. Plant 1 consists of various stations that contain coating booths and ovens. The individual pieces of equipment all operate under permit exemptions, but their emissions are accounted for under the FGFACILITY flexible group.

Coating (Paint) Booths: All of the coating booths in this plant have tri-pack filters with a primary filter overlay. The booths are all equipped with Dwyer Magnahelic gauges with color marked ranges. The filters are replaced when the pressure drop reaches 0.3" W.C. Spent waste filters are handled by waste technicians and are stored in labeled black drums. The facility has a contract

with Safety Kleen to handle their hazardous waste. Each of the booths was identified with an asset tag number and had a material use log hanging on the exterior.

Asset Tag No.	Name of Equipment	Type of Equipment	Rule 201 Exemption	Installation Date
696650	Paint Booth	Paint	R 336.1287(2)(c)	5/2020
696219	Paint Booth	Paint	R 336.1287(2)(c)	
696309	Paint Booth	Paint	R 336.1287(2)(c)	11/2020
696270	Paint Booth	Paint	R 336.1287(2)(c)	
696811	Paint Booth	Robotic, Powder	R 336.1287(2)(c)	11/2020
696486	Paint Booth	Prime Paint	R 336.1287(2)(c)	11/2020
696097	Paint Booth	Paint	R 336.1287(2)(c)	8/2020

Phosphoric acid anodizing (PAA) line: This process is used to clean, etch and anodize aluminum parts and vents to the general in-plant environment. The process flow is degreaser to hot alkali degreaser to deionized (DI) water rinse to phosphoric acid etch to DI water rinse to phosphoric acid anodizing to rinsing twice with DI water. The PAA line operates under permit exemption R 336.1285(2)(r).

PAA oven: An electric oven that is used for drying parts that have gone through the PAA line. The PAA oven operates under permit exemption R 336.1281(2)(e).

Electric Curing Ovens: Electric ovens that are used to cure 2-component epoxy adhesives which are manually applied to the parts. All ovens are vented to atmosphere out vertical stacks on the roof. The ovens operate under permit exemption R 336.1287(2)(c).

Electric Heat-Treating Ovens: Metal heat-treating ovens that operate under permit exemption R 336.1282(2)(a)(i).

Testing/Inspection Ovens: Ovens used to cure and test parts that operate under permit exemption R 336.1283(2)(d).

Shotblasting booth: Plastic bead blasting with a cartridge baghouse inside the facility (primary control) and another baghouse outside the building (secondary control) before being exhausted to the ambient air through a horizontal exhaust stack. The spent blast media is handled as non-

hazardous waste. The shotblasting booth operates under permit exemption R 336.1285(2)(I)(vi) (C).

Media Blasters: Internally vented media blasters that operate under permit exemption R 336.1285(2)(I)(vi)(B).

Basin parts washer: A basin parts washer with a closed lid and a surface area of (1.5'x2.5'); 3.75 ft². Operating instructions present on inside of lid, and AQD orange sticker was posted for compliance with Part 7 Rules. Cleaning solvent is deodorized kerosene or petroleum distillates (Safety Kleen Premium Solvent). This equipment operates under permit exemption R 336.1281(2) (h).

Spray gun parts washer: Lid is closed on the parts washer, with a surface area of 1 ft². Operating instructions are present, utilizes acetone as the cleaning solvent. Not used very often, as the facility uses disposable HVLP spray guns. This equipment operates under permit exemption R 336.1281(2)(h).

Plant 2:

Description: Plant 2 has a large coating (paint) booth for larger parts and has a line of coating booths dedicated to working on caps and cones for airplanes. This plant building also contains some small machining equipment.

Coating (Paint) Booths: The large paint booth is equipped with a CO and O2 monitor to measure the atmospheric conditions in the booth. All the booths in plant 2 are equipped with tri-pack filters with a primary filter overlay. The booths are all equipped with marked Magnahelic gauges to monitor when the filters need to be replaced. There is a line of coating booths dedicated to working on caps and cones for airplanes. There are material use logs hanging on the exterior of the booths.

Asset Tag No.	Name of Equipment	Type of Equipment	Rule 201 Exemption	Installation Date
696483	Large Paint Booth	Paint Booth- Cases	R 336.1287(2)(c)	
696542	Paint Booth	Paint Booth- Cones	R 336.1287(2)(c)	
696572	Paint Booth	Paint Booth- Cones	R 336.1287(2)(c)	
696573	Paint Booth	Paint Booth- Cones	R 336.1287(2)(c)	
696638	Paint Booth	Paint Booth- Fan Blade Fairings	R 336.1287(2)(c)	

Natural gas-fired oven: Associated with the large paint booth, located right next to it. Operates under permit exemption R 336.1287(2)(c).

Electric ovens: Associated with other paint booths and used to cure hand-applied epoxy materials. These ovens operate under permit exemption R 336.1287(2)(c).

Heat-Treating Ovens: Electric oven used to heat-treat metal parts. Operates under permit exemption R 336.1282(2)(a)(i).

Power Wash Cleaning: Self-contained washer unit that uses alkaline soap, no VOC's used. Operates under permit exemption R 336.1281(2)(e).

Spray Gun Parts Washer: Lidded parts washer with a surface area of 1 ft². Operating instructions are present and cleaning solvent is acetone. Not utilized very often because the facility uses disposable HVLP spray guns. Operates under permit exemption R 336.1281(2)(h).

Machining Operations: Machining area in this plant where saws, metal benders and milling take place. These pieces of equipment are vented to the in-plant environment. Equipment operates under permit exemption R 336.1285(l)(i) and (vi).

Media Blaster: Media blaster that is vented to the in-plant environment. Operates under permit exemption R 336.1285(2)(l)(vi)(B).

Plant 3:

Description: Plant 3 is used for the manufacture and reworking of thrust reversers for airplanes. These are larger pieces of equipment and so there are larger coating (paint) booths and ovens associated this production.

Coating (Paint) Booth: The large paint booth is equipped with a CO and O2 monitor to measure the atmospheric conditions in the booth. The large paint booth is equipped with tri-pack filters with a primary filter overlay. The booth is equipped with marked Magnahelic gauges to monitor when the filters need to be replaced. There is a material use log hanging on the exterior of the booth.

Asset Tag No.	Name of Equipment	Type of Equipment	Rule 201 Exemption	Installation Date
696416	Large Paint Booth	Paint Booth- Thrust Reversers	R 336.1287(2)(c)	

Natural gas-fired oven: Associated with the large paint booth, located right next to it. Operates under permit exemption R 336.1287(2)(c).

Plant 4:

Description: Plant 4 is divided into two sides: "Test" and "Blades". The "Test" side performs testing on airplane turbines. It has two large paint booths for coating turbine parts. The "Blades"

side of the facility has been shut down since September 1, 2020 to undergo construction and move in new equipment. The earliest the "Blades" side of the facility could possibly restart operations would be April 2022. The operations will resume at some point in 2022. It will involve work on airplane turbine blades. The equipment in the "Blades" side of the facility will also operate under permit exemptions.

Coating (Paint) Booths: The large paint booths are equipped with a CO and O2 monitor to measure the atmospheric conditions in the booth. The large paint booths are equipped with tri-pack filters with a primary filter overlay. The booths are equipped with marked Magnahelic gauges to monitor when the filters need to be replaced. There are material use logs hanging on the exterior of the booths.

Asset Tag No.	Name of Equipment	Type of Equipment	Rule 201 Exemption	Installation Date
696786	Large Paint Booth	Paint Booth- Test	R 336.1287(2)(c)	3/1/2014
696632	Large Paint Booth	Paint Booth- Test	R 336.1287(2)(c)	3/1/2014

Natural gas-fired ovens: Associated with the large paint booths, located right next to them. They operate under permit exemption R 336.1287(2)(c).

PTI No. 40-03 Requirement Review:

FGFACILITY: All equipment at the stationary source including equipment covered by other permits, grandfathered equipment, and exempt equipment.

Emission Limits:

I reviewed records from the past two years for the facility, from February 2020 to February 2022. The emission limits are recorded in excel spreadsheets. I included the maximum observed emissions recorded during that period in the table below. The maximum individual hazardous air pollutant (HAP) emitted was Xylene, which made up ~36% of the maximum aggregate HAPs emitted. The emissions of VOCs and HAPs were well below the permitted emission limits during the period reviewed.

Pollutant	Limit (TPY)	Max Observed (TPY)	% of Emission Limit
VOCs	90.0	10.89	12.1
Individual HAPs	9.0	0.668	7.4
Aggregate HAPs	22.5	1.87	8.3

Material Limits:

The facility is required to keep records on the gallons or pounds of each coating or other materials used. I noted that each coating (paint) booth has a log used to track the material usage hanging on it. The information from each log sheet is entered into a spreadsheet. I reviewed the spreadsheet for the past two years for the facility, from February 2020 to February 2022 and noted that all of the coating booths have maintained the permit exemption requirement of R 336.1287(2)(c)(i) to use less than 200 gallons as applied, minus water, per month. The facility has also been tracking the VOC and HAPs contents of all the coatings and materials being used in a spreadsheet. These were used with the material usage records to calculate the emissions in the emission limits section above.

Compliance Determination:

Based on my review of the facility's records and my on-site inspection, it appeared that the facility was in compliance with PTI No. 40-03 and was using applicable permit exemptions for their exempt equipment.

NAME Matthew R. KarlDATE 08/10/2022SUPERVISOR RB