

Jared

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

B758570030

FACILITY: PARKER HANNIFIN CORPORATION		SRN / ID: B7585
LOCATION: 601 S WILMOT STREET, OTSEGO		DISTRICT: Kalamazoo
CITY: OTSEGO		COUNTY: ALLEGAN
CONTACT: Chad Boelman , Division EHS Manager		ACTIVITY DATE: 11/21/2023
STAFF: Cody Yazzie	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Schedule Inspection		
RESOLVED COMPLAINTS:		

On November 21, 2023 Air Quality Division (AQD) staff (Cody Yazzie and Jared Edgerton) arrived at 601 South Wilmot Street, Otsego Michigan at 10:30 AM to conduct an unannounced air quality inspection of Parker Hannifin Corp. (hereafter PHC) SRN (B7585). Staff made initial contact with Josh Kidder, PHC, Plant Manager and stated the purpose of the visit. Chad Boelman, PHC, Division EHS Manager, is the environmental contact and arrived shortly thereafter and escorted staff around the facility and had further recordkeeping requirement discussions.

PHC makes metal component for filter bodies, regulators, pneumatic cylinders, and other similar items that are shipped over to the Richland facility for assembly. The facility has a few die casting machines that mold the parts manufactured with other metal working equipment. Parts are then washed and coated in the powder coat line. The facility has its own burn off oven that it operates to "clean" (burn-off) the coating accumulated on the racks used in the powder coat line for reuse. PHC has roughly 75 workers and operates Monday through Friday on a 3rd and 1st shift schedule. Hours of operation are from 10 PM to 4 PM.

PHC was last inspected by the AQD on February 14, 2012 and appeared to be in Compliance at that time with PTI No. 367-95 Staff asked, and Mr. Boelman stated that the facility does not have any emergency generators or cold cleaners.

Mr. Boelman gave staff a tour of the facility. Required personal protective equipment are safety glasses, steel toe boots, long sleeve shirt, and hearing protection. Staff observations and review of records provided during and following the inspection are summarized below:

PTI No. 367-95 (Burn-off Oven):

The burn-off oven is operated under PTI No. 367-95. This PTI only has a few special conditions associated with it. During the inspection the burn-off oven was not in operation. When Staff inquired about the operation of the burn-off oven Staff was told by Justin Benjermin, PHC that the facility has been loading the oven at the end of the 1st shift roughly around 3 PM then letting the oven run its burn off cycle while the building was closed with no one around to really monitor until the start of the 3rd shift around 10 PM. Staff was verbally told that the operating temperature of the afterburner varied from 1200°F - 1500°F by Mr. Benjermin. After the inspection Staff was provided with a service work order dated November 29, 2023 that just stated during the work order the oven reached a temperature above the required 1400°F minimum temperature.

During the inspection Staff was shown that the non-operating burn-off oven did have an afterburner set point temperature of 1650°F.

Staff did observe the stack of the burn-off oven and noted their appeared to be a rain cap on the stack, however the permit has no requirements for the orientation or against obstructions on the stack conditions. The oven does have a 5% opacity limit based on a 6-minute average as apart of the permit. Staff observed no visible emissions since the oven was not in operation.

PHC is required to not operate the burn-off oven unless the after burner is installed and operates at a minimum temperature of 1400°F. The facility is also required to equip and maintain the after-burner portion of the burn-off oven with a temperature gauge to continually monitor the after-burner temperature. From the verbal statement from Mr. Benjermin it would appear that the burn-off oven has operated below the minimum temperature of the burn-off oven in the past, which is a violation of special condition 14 of PTI No. 367-95. The work order provided appears to only be a record of one day to which the facility operated the burn-off oven in accordance with the permit requirements. The facility also does not appear to be operating the burn-off oven in a manner that monitors the afterburner temperature even though there is a thermocouple installed. As previously stated, Staff was told that the facility has been loading the oven before closing and the burn cycle is run while nobody is around to monitor. Staff thinks that with no recordkeeping of the temperature from a circle chart or other equipment that it is a violation of special condition 15 of PTI No. 367-95.

The facility is required to dispose the collected ash in a manner that minimizes the introduction of air contaminants to the outer air. Staff was told that the facility collects the waste in the oven then has Republic Waste conduct a study to make sure it is not hazardous waste then take it off for disposal.

Die Casting Machines:

The facility has two zinc die casting machines that operate at the facility these are natural gas fired and have a heat input of 1.5 MMBTU/hr. These units have exhaust that vent to atmosphere. Rule 285(l)(ii) exempts equipment and any exhaust system or collector exclusively serving die casting machines. From this the machines appear to be exempt from Rule 201 per Rule 285(l)(ii).

Potassium Hydroxide Wash Tanks:

After the metal parts are cast in the die casting machines the parts are washed in a potassium hydroxide wash tank. These tanks appear to only vent to the general in-plant environment. There are windows that are located close to the tanks where the cleaning is done. Staff noted that while the tanks were in operation during the inspection that the windows were closed. Staff mentioned to Mr. Boelman that as stated in the exemption that that emissions should only be vented to the general in-plant environment. During the inspection Staff noted that the facility appears to be meeting the requirement for Rule 285(2)(r)(iv) for equipment used for the metal treatment processes (cleaning) if the process emissions are only released into the general in-plant environment.

Powder Coating Line:

The powder coating line has 3 "stages" to the coating line. The first "stage" is a washing and drying section where the parts are washed using a diluted chemical that is identified as Secure Tec Es. Staff was provided with the SDS for this chemical and it was noted that the SDS indicated that there is 0% VOC content. Rule 281(2)(e) exempts equipment from permitting if the

equipment is used for washing or drying materials, where the material itself cannot become an air contaminant, if no volatile organic compounds that have a vapor pressure greater than 0.1 millimeter of mercury at standard conditions are used in the process and no oil or solid fuel is burned.

Staff was told that the dryer is natural gas fired. The material being washed is a metal and from Staff observations during the inspection did not appear to have a chance to become an air contaminant during the process. The SDS also indicated that there was no VOC's which appears to comply with the vapor pressure requirement of the exemption. The washing and drying "stage" of the powder coat line appears to be exempt per Rule 281(2)(e).

After being washed the parts enter the power coating booth that includes a system where it filters, captures, and reuses powder. After the parts are powder coated they are cured in an electric UV oven. These appeared to meet the requirements of Rule 287(2)(d) for a powder coating booth and associated ovens, where the booth is equipped with fabric filter controls.

Misc. Natural Gas Fired Equipment:

The facility does have several natural gas fired space heaters and/or air make-up units in the plant. These units were noted as appearing to meet the requirements of Rule 282(2)(b)(i) during the previous inspection. Staff noted that the facility stated they still have 3 of these units.

Conclusion:

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in non-compliance with PTI No. 367-95. Staff stated to Mr. Boelman that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 12:00 PM.-CJY

NAME Cody Yozzo

DATE 12/5/23

SUPERVISOR Mark K.