

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

ACTIVITY REPORT: Scheduled Inspection

N271247628

FACILITY: Henrob Corporation		SRN / ID: N2712
LOCATION: 30000 S HILL RD, NEW HUDSON		DISTRICT: Southeast Michigan
CITY: NEW HUDSON		COUNTY: OAKLAND
CONTACT: Kristie Laframboise , SHEQ Engineer		ACTIVITY DATE: 12/17/2018
STAFF: Rem Pinga	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Level 2 Scheduled Inspection		
RESOLVED COMPLAINTS:		

On December 17, 2018, I conducted an unannounced level 2 target inspection at Henrob Corporation, SRN: N2712, located at 30000 South Hill Road, New Hudson, Michigan 48165. The purpose of the inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Administrative Rules, and the facility's Permits to Install No. 94-13A, 92-14, 177-15, and 162-16. Atlas-Copco bought the company a few years ago but chose to keep the facility under Henrob Corporation at this time for business reasons. During the pre-inspection meeting, I was met by Ms. Kristie Laframboise, SHEQ Engineer and my facility contact, Mr. Chris Dams, Quality Assurance Manager, and new hire, Ms. Natalie Hamilton. Ms. Laframboise and Ms. Hamilton accompanied me during the walk-through inspection.

Henrob Corporation (Henrob) manufactures self-piercing rivet products in its New Hudson facility. The rivets are used internally in place of spot welding primarily in Ford F150 truck assembly process. The company is also exploring production expansion options to produce rivets that can be used for other vehicle types.

The facility production processes include metal fabrication, heat treat, and metal plating. The facility started production operations at the 30000 South Hill Road, New Hudson address. Henrob obtained Permit to Install (PTI) No. 94-13A, for 2 heat treat process lines, and PTI No. 92-14, for the control equipment of a plating line, for the production processes at this building. The facility needed to increase capacity a few years ago. Henrob expanded to another building and obtained PTI No. 177-15, for an additional 2 heat treat process lines, and PTI No. 162-16, for another metal plating line. The expansion facility, Plant 2, is located next to the original facility, Plant 1, but carries a 54900 Grand River Ave., New Hudson, address.

The walk-through inspection commenced at Plant 1. I observed the metal fabrication and machining processes in operation for the production of the rivets. Rivet manufacturing starts with the forging process of producing rivets from a roll of metal wire. Per Ms. Laframboise, Plant 1 has about 40 forging presses. The rivets then go through a heat treat process and plating process to meet customer specifications followed by packaging. During inspection, I observed EUHT1-1 operating at 901°C and 290°C respectively for hardening process and tempering process. EUTH2-1 was on down time. Per PTI No. 94-13A, special condition FGHEATTREAT1 (V.1), a stack test was conducted on 03/09/2016 to determine an emission factor (EF) for

VOC in lb./ton metal charged. This EF will be used to calculate for VOC emission rate in tons per year (tpy). The test result showed 0.10 lb./ton metal charged. This is less than the 1.0 lb./ton metal emission factor contained in PTI No. 94-13A, special condition FGHEATTREAT1 (VI.2.c), that was originally set when the permit was issued as starting point to calculate for VOC emission rate prior to stack testing. Per PTI No. 94-13A, special condition FGHEATTREAT1 (I.1), submitted records showed the highest monthly 12-month rolling total VOC emission rate from January 2018 through December 2018 at 0.0949 tpy for the month of December 2018 and less than the 2.0 tpy permit limit. Per PTI No. 94-13A, special condition FGHEATTREAT1 (II.1), submitted records showed the highest monthly 12-month rolling total metal production rate from January 2018 through December 2018 at 1,984.98 tpy for the month of December 2018 and less than the 4,000 tpy permit limit.

Per PTI No. 92-14, special condition FGRIVETS (III.1), Ms. Laframboise submitted an updated version of the Malfunction Abatement Plan including an updated list of facility contacts. During walk-through inspection and per PTI No. 92-14, special condition FGRIVETS (IV.1 & 2), I observed the multi-stage wet scrubber system with a device to monitor the pressure drop across the scrubber, a pH meter, and a flow rate meter. Per PTI No. 92-14, special condition FGRIVETS (VI.1), the facility monitors and records the pressure drop and the pH on a weekly basis. During inspection, I observed the following: pH=8.2, Δp =2.0 inches water, and scrubber water flow rate=100 gpm.

During walk-through inspection of Plant 2, I verified that only 1 of 2 heat treat process equipment included in PTI No. 162-16, was installed and operating. EUHT1-2 commenced operations in October 2016. While at the heat treat equipment, I observed the following temperatures: 900°C, 200°C respectively for hardening process and tempering process. Per PTI No. 177-15, special condition FGHEATTREAT2 (V.1), the FGHEATTREAT1 stack test, conducted on 03/09/2016 to determine an emission factor for VOC in lb./ton metal charged, will be used to calculate for VOC emission rate in tons per year (tpy) for FGHEATTREAT2. This test result was 0.10 lb./ton metal charged. Per PTI No. 177-15, special condition FGHEATTREAT2 (I.1), submitted records showed the highest monthly 12-month rolling total VOC emission rate from January 2018 through December 2018 at 0.0550 tpy for the month of December 2018 and less than the 2.0 tpy permit limit. Per PTI No. 177-15, special condition FGHEATTREAT2 (II.1), submitted records showed the highest monthly 12-month rolling total metal production rate from January 2018 through December 2018 at 1,100.33 tpy for the month of December 2018 and less than the 4,000 tpy permit limit. Plant 2 has about 15 forging presses.

Per PTI No. 162-16, special condition FGRIVETS2 (IV.1 & 2), I observed in Plant 2, the multi-stage wet scrubber system with a device to monitor the pressure drop across the scrubber. Per PTI No. 162-16, special condition FGRIVETS2 (VI.1), the facility monitors and records the pressure drop and the pH at least on a weekly

basis. During inspection, the plating line operating parameters were: pH=7.1, $\Delta p=1.2$ inches water, and the scrubber water flow rate=70 gpm. After the plating process, the rivets go to collation machines for packaging.

During inspection, I conducted a walk-through inspection at Henrob's three emergency generators. It operates a Cummings, natural gas fired, 198 BHP emergency generator (6/02/2008 install date) and a diesel fired Generac 389 BHP (5/02/2013 install date) emergency generator in Plant 1. I also observed a diesel fired Cummings 464 BHP (2015 install date) emergency generator in Plant 2. It appears that all three engines are subject to 40 CFR Part 63 Subpart ZZZZ. The Generac engine is subject to 40 CFR Part 60 Subpart IIII and the 464 BHP Cummings engine is subject to 40 CFR Part 60 Subpart JJJJ. Henrob submitted recordkeeping showing that the engines are USEPA certified. The facility also submitted records on maintenance contracts, records of dates and times of non-emergency operations (15 minute weekly maintenance runs). Per Ms. Laframboise, the maintenance activities include, oil changes, inspections of belts, hoses, etc. During inspection, I also noted the following non-resettable hour meter readings: natural gas (NG) fired Cummings Engine = 165.3 hours; Generac Engine = 122.3 hours; diesel fired Cummings Engine = 89.2 hours. Submitted records for engine operating hours in CY 2018 showed as follows: Cummings NG engine – 11.32 hours; diesel fired Cummings engine – 13 hours; and diesel fired Generac engine – 14.00 hours. The operating hours are below the 50/100 hours/year for non-emergency run time.

Overall, I did not find any noncompliance issues during inspection.

NAME



DATE

1/18/2019

SUPERVISOR

