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

N252542706

FACILITY: BENTELER AUTOMOTIVE INCORPORATED		**SRN / ID:** N2525
LOCATION: 3721 HAGEN DR SE, GRAND RAPIDS		**DISTRICT:** Grand Rapids
CITY: GRAND RAPIDS		**COUNTY:** KENT
CONTACT: Alycia Provenzo , Safety Health Environmental Manager		**ACTIVITY DATE:** 12/18/2017
STAFF: April Lazzaro	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, scheduled inspection and met with Alycia Provenzo, Safety Health and Environmental Manager for the facility. I informed Ms. Provenzo of the purpose of the visit, and learned that several of the people who we needed to have present for the inspection were not in today. Nevertheless, we conducted a physical tour of the facility and observed operations.

FACILITY DESCRIPTION

Benteler Automotive Corporation, Hagen Drive facility conducts robotic tig welding of stainless steel exhaust manifolds and converter systems for the automotive industry. Tube bending is also conducted as part of production. Additionally, there are three dynamometer test cells that conduct thermal durability testing on exhaust manifolds. The facility operates pursuant to Opt-out Permit to Install No. 467-97, which limits the potential to emit of carbon monoxide (CO), nitrogen oxides (NOx) and hazardous air pollutants (HAPs).

This facility also has a Stipulation for Entry of Final Order by Consent or Consent Order No. 3-2015. This Consent Order was issued for repeated failure to submit the Michigan Air Emissions System (MAERS) annual reports. The order requires Benteler Automotive Corporation to submit the MAERS reports timely, and the monetary penalty was $15,540.00.

Benteler Automotive Corporation Hagen Drive facility employs ~650 people and operates three shifts, six days a week.

COMPLIANCE EVALUATION

During the first inspection, Ms. Provenzo and I discussed the eight baghouses that control particulate emissions from the facility welding operations. We conducted a visual inspection and I noted that there was particulate on the snow around several of them. It was then that I learned that a filter replacement had recently taken place. I informed Ms. Provenzo that at this time, it was ok, but that during the follow up inspection I would focus on these specific areas to ensure that the particles seen were indeed from the filter change out, and not from improper operation. At that time, the maintenance supervisor, Jeff Warren was not there to discuss this with, but Ms. Provenzo stated she would relay the information.

We also observed the area where the three dynamometer test cells are located. We learned that the supervisor, Bob Tramontin was not in and as such the records were not available.

During the exit conference we discussed that I would come back the week of January 8th when all her facility staff would be available to ensure I saw what I needed to inspect. The week of January 1st, Mr. Tramontin started sending records for the dynamometers so that I could prepare for the follow up. Required records for the dynamometers were maintained, but there was no records of Hazardous Air Pollutants available. I also asked for a formal and updated facility-wide Potential to Emit demonstration for all criteria pollutants, and I indicated I would e-mail Ms. Provenzo the link to the guidebook website.

On January 8, 2018 I returned to the facility for a 9:00 AM follow up inspection and met with Ms. Provenzo. Accompanying her was Kathy Jo DeVault, Regional Health and Safety Manager and Loren Madsen. Ms. DeVault indicated that she used to work at this facility for several years doing the environmental work among other things. I stated that I wanted to start by inspecting all baghouses by walking the exterior of the facility. There had been a fresh 3" of snowfall the night before.

The baghouses are numbered 1-8, which were not observed in numerical order. All baghouses are horizontal cartridge style filtration systems that collect particulate from the welding operations. All units appeared to be less than 35,000 CFM and have historically operated pursuant to the Rule 285(2)(i) exemption for welding operations. Baghouse numbers 1 & 3 were not in operation at the time of the inspection. Baghouse number 2 was in disrepair. The area where the cartridges were installed was very dirty. The unit had three drums underneath drop chutes and the tops of the covers were not secure. There was visible particulate and staining on the fresh snow. Baghouse number 4 was also dirty around the area with visible particulate on the snow. The unit had drums underneath drop chutes, and the tops of the covers were not completely covering the drum opening. A pressure drop gauge on the side of the unit read 1.0" H2O. Baghouse number 5 & 6 are new- installed in 2016 and 2017, and appeared clean around the area. Baghouse number 7 was the largest baghouse and was in disrepair. The unit was dirty and displayed dripping type stains on the ductwork throughout. Visible particulate was noticeable on the fresh snow, and I walked around to the very back of the unit, located near the wall of the facility. There it was identified that visible particulate was present, and the thermal fabric that connects the fan to the baghouse itself had disintegrated over time and was no longer present. (see attached photos) Baghouse number 8 was stained at the cartridge area but no other visible issues were identified in the area.

Due to the disrepair of the equipment as identified above, Benteler is in violation of Rule 910 for failure to properly operate particulate control devices. Additionally, Benteler is in violation of Rule 370 for failure to collect and properly dispose of air contaminants. This is significant due to the fact that the weld wire contains chromium, manganese and nickel among other metals. A Violation Notice will be issued.

We returned to the conference room and sat down with Mr. Warren so that I could discuss the issues that we observed and to inquire about pressure drop monitoring of the equipment. He basically said that in the winter they don't monitor that because the equipment doesn't work properly, due to the cold. We learned that they do a weekly manual baghouse shakedown, because they can't stop production during the week in order to perform that function. I informed him that as part of the Violation Notice I would be requiring a formal preventative maintenance plan be implemented for all baghouses. He indicated that they do perform maintenance and that they are very expensive to replace the filters annually, which is their current practice.

Following that we went to observe the dynamometer laboratory. I mentioned to Mr. Tramontin that in previous reports AQD staff had indicated that two of the dynos were non-operational and would require a significant investment to get going again. He stated that there was a time where the were not operating very often, but that no upgrades had really been conducted. Visually, it did not seem apparent to me that upgrades had occurred, and even the electronics were not particularly new. This area operates the dynamometers utilizing premium unleaded gasoline from an 8,000 gallon underground storage tank. Mr. Tramontin monitors fuel usage for permitting purposes and to ensure there's no leakage occurring from the tank.

PTI No. 467-97

The permit was written with the intent to be a facility-wide Opt-out permit for CO, NOx and HAPs.

The permit limits total CO emissions at the facility to 88 tons per 12-month rolling time period. Two years of records were requested and promptly provided by Mr. Tramontin. (see attached) Reported 12-month rolling CO emissions through December 2017 are 27.8 tons.

The permit limits total NOx emissions at the facility to 88 tons per 12-month rolling time period. Two years of records were requested and promptly provided by Mr. Tramontin. Reported 12-month rolling NOx emissions through December 2017 are 3.3 tons.

The permit limits total HAP emissions at the facility to 22 tons and individual HAP to 8.9 tons per 12-month rolling time period. HAP emissions were not available at the time of the inspection, which is a violation of Special Condition No. 15. It will be included in the Violation Notice.

There are daily emission rates established in the permit, based on fuel usage that is required to be tracked monthly, and prorated to a daily rate. The monthly limit is 600 gallons, and the highest monthly fuel usage for the past two years was in August of 2017 with 9409.9 gallons used. This equates to a

prorated daily usage of 301 gallons of fuel. The annual fuel usage is limited to a total of 150,000 gallons calculated on a 12-month rolling average. The rolling average through December 2017 is 33,126 gallons.

The dynamometers were observed during operation and no visible emissions were observed. While the stacks were not measured, they appeared visually sized correctly and this was confirmed with Mr. Tramontin. The dynamometers do not operate without the use of the required air injection control system maintained at a temperature above 1,000°F. This is also included in the attached recordkeeping. To ensure appropriate temperatures, extra thermocouples are kept on site for easy replacement. During the inspection, I was able to observe the parameters monitored and recorded, which included all necessary items.

CONCLUSION

Due to the failure to maintain baghouses, failure to collect and properly dispose of air contaminants and failure to maintain records of Hazardous Air Pollutants, a Violation Notice will be issued.

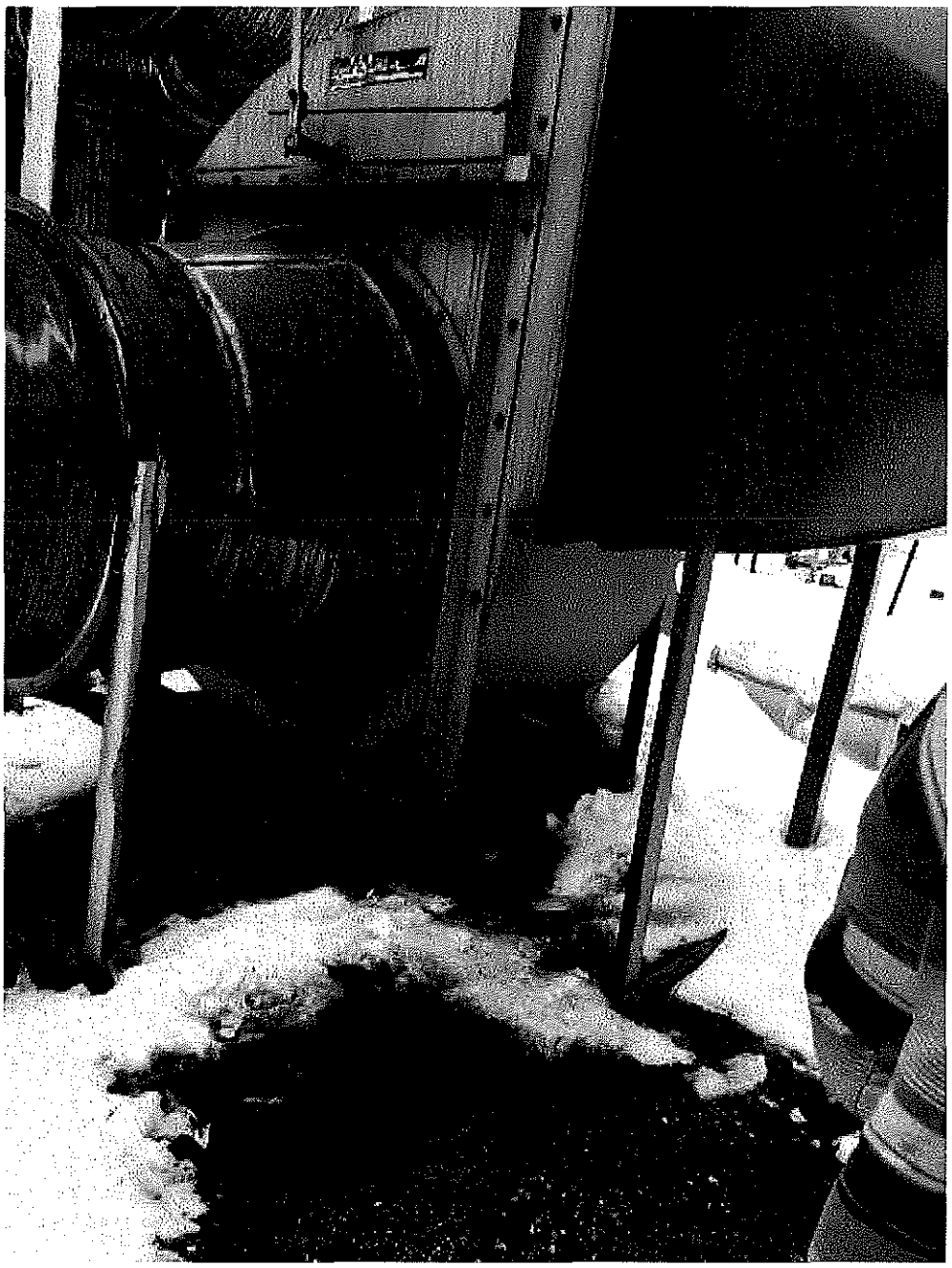

Image 1(Baghouse 7) : Fan housing, missing seal, general disrepair, black particulate on fresh snow on the ground.

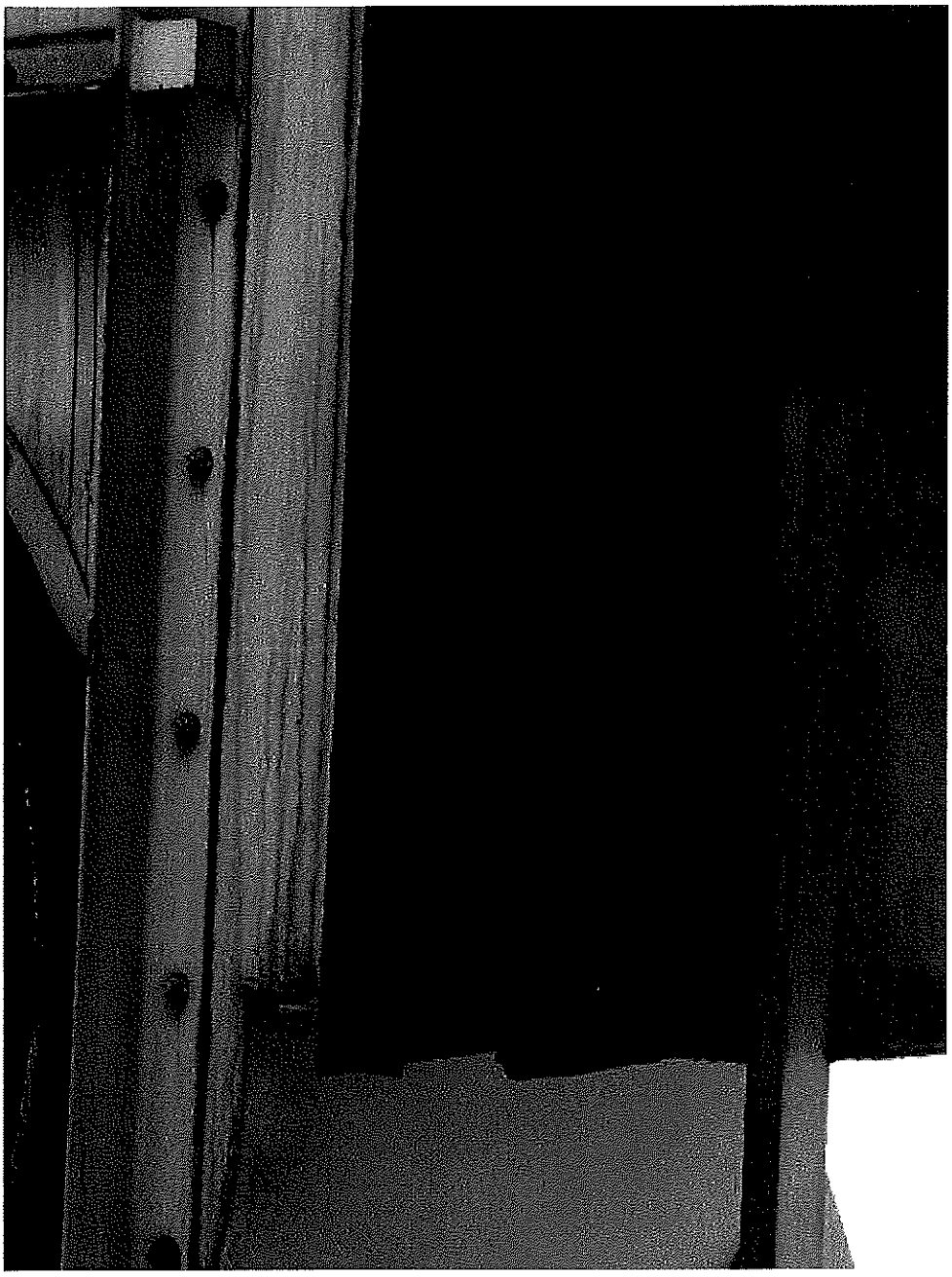

Image 2(Seal closup) : Missing seal.

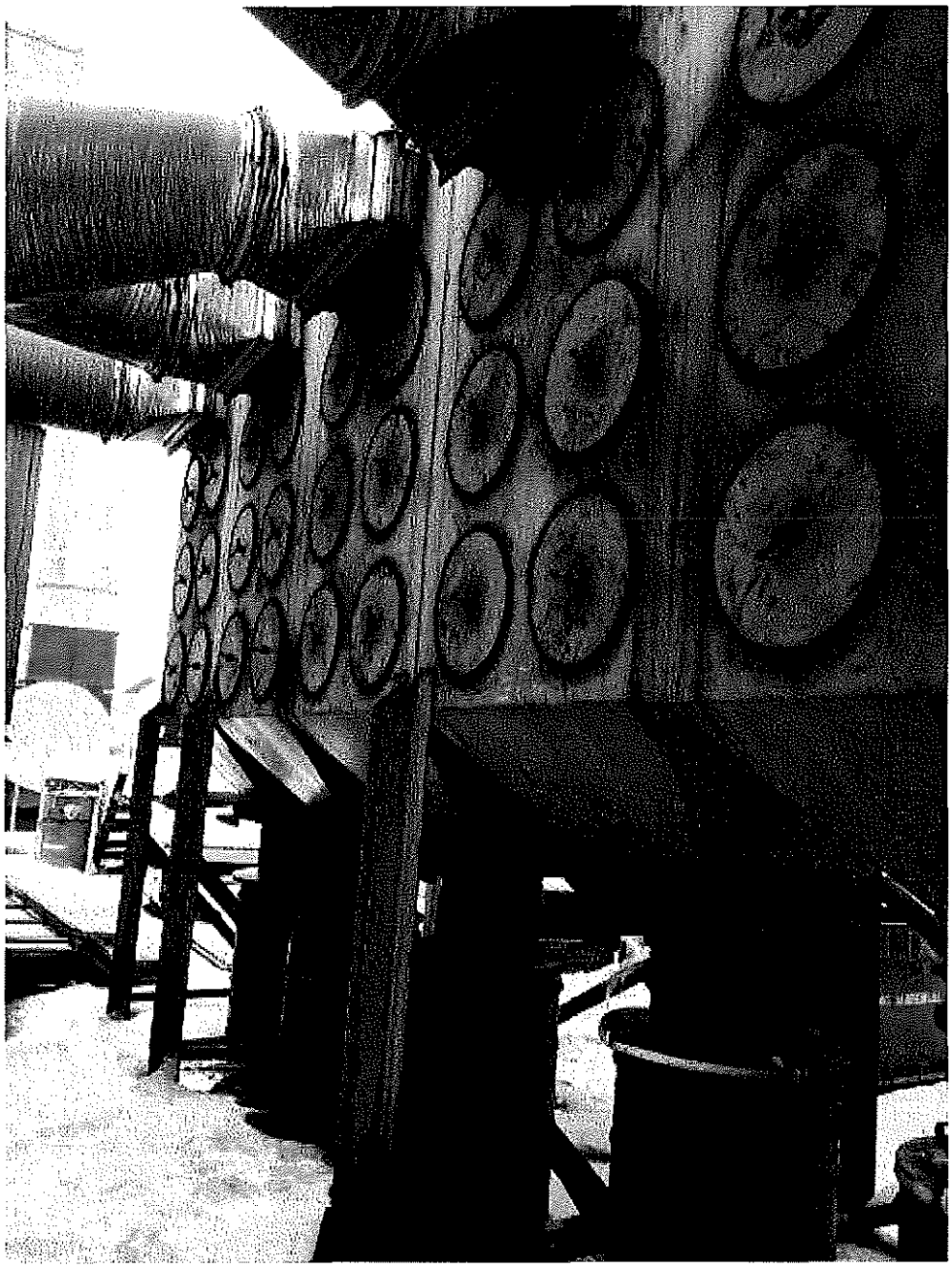

Image 3(Filter housing) : Filter housing staining, drum collection area.

NAME [signature] DATE 1-10-17 SUPERVISOR [signature]