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

B191255248

FACILITY: L3 Harris Combat Propulsion Systems		**SRN / ID:** B1912
LOCATION: 76 GETTY STREET, MUSKEGON		**DISTRICT:** Grand Rapids
CITY: MUSKEGON		**COUNTY:** MUSKEGON
CONTACT: Cammie Heatherington , Sr. Environmental Engineer		**ACTIVITY DATE:** 08/06/2020
STAFF: Scott Evans	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled, announced air quality compliance inspection.		
RESOLVED COMPLAINTS:		

Introduction
L3 Combat Propulsion is a manufacturing facility that produces and repairs engine components for military tanks and vehicles. The facility is located at 76 Getty St. in Muskegon, Michigan. It includes multiple machining operations and coating / finishing processes to construct fully functional components. The machining operations include both manual and automated processes to meet very precise parameters required for proper engine functionality. The coating and finishing operations include a wide variety of processes such as dip tanks, spray booths, and ovens.

A scheduled, announced inspection was conducted on August 6, 2020. This was an announced inspection in order to ensure facility staff were present and proper safety measures could be met as the COVID-19 pandemic was ongoing at the time. Upon approach there were no signs of Visible Emissions and there were no noticeable odors around the exterior of the facility. After entering the facility and submitting to a basic health screening (preventive measure during the COVID-19 pandemic) inspector Scott Evans (SE) was greeted by the Environmental Health and Safety representative Cammie Heatherington (CH). A walking visual inspection of the facility was conducted with records reviews occurring remotely. Proper PPE and social distancing were maintained during the inspection.

PTI No. 161-08 Evaluation
PTI No. 161-08 is an opt-out permit that covers four emission units (EU-PRODUCTIONCELLS, EU-EXPERIMENTCELLS, EU-ALUMINUMLINE, and EU-FERROUSLINE) and two flexible groups (FG-SURFACETREAT and FGFACILITY).

EU-PRODUCTIONCELLS
This unit consists of test cells used for testing in-production engine transmission systems. Emissions from these cells are vented through a Parallel Thermal Oxidizing (PTO) system. The equipment is subject to one emission limit: 0.10lbs of Particulate Matter (PM) per 1000lbs of exhaust gasses. Operation of this unit is only permitted if it is connected to the PTO and if the system is operated satisfactorily

During the visual inspection all test cells were observed. Not all cells are currently in use, with some being used as storage space. All cells remain properly installed and maintained for potential future use depending on production needs. On August 6, 2020, only a couple cells were actively running during the site visit. All operating cells were operating as required and the PTO was operating with a running temperature of 1502°F, which followed operating parameters outlined in the Malfunction Abatement Plan (MAP) and is in compliance with the permitted minimum temperature of 1100 degrees F. As required by PTI No. 161-08, a continuous reading of the PTO temperature is generated digitally and kept on site for the required 5 years.

EU-EXPERIMENTCELLS
This emission unit consists of test cells used for testing experimental transmission systems. These cells are operated in the same fashion as the EU-PRODUCTIONCELLS units with emissions being vented through the PTO. This unit is also subject to one emission limit: 0.10lbs of PM per 1000lbs of exhaust gas. Operation of this unit requires proper attachment to and operation of the PTO.

During the visual inspection all test cells were observed, though not all were actively in use. Those that were active during the inspection were properly attached to the PTO and, as already discussed above, the PTO was operating as required by the permit and MAP at 1502°F with digital PTO monitoring being properly recorded and retained.

FG-SURFACETREAT
This flexible group encompasses two emission units: EU-ALUMINUMLINE and EU-FERROUSLINE. These units

are coating lines, one of which is an aluminum conversion line and the other of which is an iron phosphate line. This group has two associated emission limits corrected to 70°F and 29.92 inHg:

- 4.19 µg/m^3 of Hexavalent chromium at EU-ALUMINUMLINE
- 3.22 µg/m^3 of Hexavalent chromium at EU-FERROUSLINE

These lines are required to be connected to respective wet scrubbers to control emissions.

During the visual inspection all tanks and associated scrubbers appeared in good operational condition. It was observed that one wet scrubbers was operating at a pH of ~9.5, which was compliant with the operational minimum pH of 9, as established in the MAP. The other system was not in operation and has not been used since 2015. The system that was in operation had a continuous pH monitor that would alert if the pH ever dropped below 9. Records reflected the function of this system and maintenance of pH above 9. These units exhaust through two respective stacks, which did not appear to have undergone any modification and appeared to be compliant with the permit.

The facility is required to keep monthly chromatic acid use records. These records were provided as an annual record of acid added to the system, as additions only occur approximately once per year. This is acceptable. The records reflected an addition of 1 gallon of solution on 5/11/2020, which was the only addition since 6/24/2019. This calculates to approximately 0.09 gallons of acid used per month.

FG-FACILITY

This flexible group covers all equipment located at the facility. There are five source-wide emission limits and the facility is required to keep both monthly and 12-month rolling time period records for each limit. Records were provided at the request of SE for the time period of 6/1/2019 to 6/30/2020 for review. Records reviewed were as follows:

- Individual Hazardous Air Pollutants (HAPs): Limit to 9.0 tons per year (TPY) for each HAP
  - Highest Month: 28.19 lbs of hexane in December of 2019
  - Highest Annual: 0.0747 TPY of hexane in January of 2020
  - In Compliance
- Aggregate HAPs: Limit 22.5 TPY
  - Highest Monthly: 37.82 lbs in December of 2019
  - Highest Annual: 0.13 tons in December of 2019
  - In Compliance
- NO_x: Limit 90 TPY
  - Highest Monthly: 1.071 tons in November of 2019
  - Highest Annual: 10.72 tons in June of 2019
  - In Compliance
- CO: Limit 90 TPY
  - Highest Monthly: 1.738 tons in November of 2019
  - Highest Annual: 10.24 tons in June of 2019
  - In Compliance
- VOC: Limit 90 TPY
  - Highest Monthly: 4.933 tons in November of 2019
  - Highest Annual: 31.87 tons in June of 2019
  - In Compliance

As illustrated above, all records demonstrate compliance with permitted limits at the facility.

Exempt Equipment and Other Items

There are multiple pieces of equipment at the facility that are exempt from air permitting regulations under Rule 285. These exemptions include:

- Machining equipment exempt under Rule 285(2)(l)(vi)(A)
- Welding equipment exempt under Rule 285(2)(i)
- Shot blasting equipment with associated dust collectors exempt under Rule 285(2)(l)(vi)(C)

The facility has three paint booths that are used intermittently. These booths utilize fabric filters and are exempt from air permitting under Rule 287(2)(c).

The facility utilizes paint stripping equipment stations on an as needed basis. These stations are exempt from air permitting requirements by Rule 285(2)(l)(vi)(B).

The facility has an oil quench system in which a pot of hot oil is used as part of the manufacturing process.

Records indicate that this equipment was installed in the 1940s and so is grandfathered and does not require air permitting unless modified or reconstructed.

The facility has multiple stress relief ovens which are exempt from air permitting under Rule 282(2)(a)(i) as they are used as a separate process from the oil quenching operations.

The facility has salt pot operations that are exempt from air permitting under Rule 290. This is demonstrated by records that demonstrate emissions from the processes as remaining below 1000 lbs. per month.

Located at the facility are over 40 cold cleaners. Most of these cleaners utilize mineral spirits and are maintained by a contracted company, though some contain alcohol solution and are maintained by facility maintenance. Most are small enough to be exempt from air permitting under Rule 285(2)(h). However, some larger cleaners are exempt from air permitting under Rule 290, as was demonstrated on site during the inspection by records provided by CH. All observed cleaners were properly lidded during the inspection.

The facility has two emergency generators on site. One generator was installed in 1979 and has a heat input of 270,000 btu/hr. This generator is considered an existing unit and is exempt from New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart IIII. The other generator was installed in 2007 and has a heat input of 377,000 btu/hr. This generator is subject to NSPS 40 CFR Part 60 Subpart IIII. It appeared that the facility was aware of and in compliance with the requirements set by the NSPS as demonstrated by retention of manufacturer data of the generators and necessary operational records. Both generators are inspected regularly by the facility. The generators are also subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart ZZZZ. Compliance with this NESHAP is demonstrated through compliance with NSPS 40 CFR Part 60 Subpart IIII. Both generators are exempt from air permitting requirements under Rule 285(2)(g).

The facility has no boilers located on site.

Conclusions
At the conclusion of the visual inspection and the records review, the facility appears to be in compliance with air quality regulations and PTI No. 161-08.

NAME Scott Evans DATE 10/8/2020 SUPERVISOR HH