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

M478050178

FACILITY: ROUSH INDUSTRIES		SRN / ID: M4780
LOCATION: 36630 COMMERCE, LIVONIA		DISTRICT: Detroit
CITY: LIVONIA		COUNTY: WAYNE
CONTACT: Christina Mood , Senior Development Engineer		ACTIVITY DATE: 06/27/2019
STAFF: Stephen Weis	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Compliance inspection of the Roush Industries Inc. facility in Livonia. The Roush facility is scheduled for inspection in FY 2019.		
RESOLVED COMPLAINTS:		

**Location:**

Roush Industries (M4780)  
36630 Commerce Street  
Livonia 48150

**Date of Activity:**

Thursday, June 27, 2019

**Personnel Present:**

Steve Weis, EGLE-AQD Detroit Office  
Christina Mood, Senior Development Engineer, Roush Industries  
Thomas Albert, Executive Director Powertrain Testing & Development – Roush Industries

**Purpose of Activity**

A self-initiated inspection of the Roush Industries facility (hereinafter "Roush") in Livonia was conducted on Thursday, June 27, 2019. The Roush facility was on my list of sources targeted for an inspection during FY 2019. The purpose of this inspection was to determine compliance of operations at the Roush facility with applicable rules, regulations and standards as promulgated by Public Act 451 of 1994 (NREPA, Part 55 Air Pollution Control), and with applicable Federal standards. The facility is also subject to the terms and conditions of Renewable Operating Permit (ROP) No. MI-ROP-M4780-2016, which became effective on January 8, 2016.

**Facility Site Description**

The Roush facility that is the subject of the site visit and that is addressed by the ROP is located in the City of Livonia. Roush operates in several buildings on the west side of Levan Road between Amrhein and Plymouth Roads; the company owns and/or operates in 12 buildings along Levan Road and Commerce and Market Streets. The world headquarters for Roush Industries is located in a building designated as Building 6 (12447 Levan Road). The buildings that are addressed by the ROP are Building 15 (36630 Commerce) and Building 16 (36580 Commerce), both of which contain engine dynamometer test cells. There are also engine test cells operating in Building 1 (12319 Levan Road) that are not included in the ROP as, during a past determination, they were determined to be exempt from permitting requirements.

The area of Livonia in the vicinity of the Roush properties is zoned commercial and industrial. The area between Schoolcraft and Plymouth Roads throughout much of Livonia is zoned in this way. As mentioned, the Roush properties are located along Market Street north from Plymouth Road, along Commerce Street from Market east to Levan Road, and along Levan Road north from Commerce. The areas to the west, north and east of these locations are occupied by commercial and industrial entities. These entities include Nagle Paving (A4697) to the north, and the Ford Motor Company Livonia Transmission Plant (A8645) to the east. There are residential properties located south of Plymouth Road, approximately 0.4 miles away from the Roush operations/buildings that are addressed by the facility's ROP. There are also residential properties along Newburgh Road to the west, which is also approximately 0.4 miles away.

A clip from the "Contact Us" tab on Roush's website ([www.roush.com](http://www.roush.com)) is attached to this report that shows the footprint of the Roush properties in the area west of Levan Road and north of Plymouth Road in Livonia.

## **Facility Operations**

Roush Industries is one of the companies operating as part of Roush Enterprise; among the others are Roush Performance, Roush Clean Tech, Roush Fenway Racing and Performance Assembly Solutions. The company began in 1976 as Roush Performance Engineering. Roush currently provides engineering, testing and development, prototyping services, manufacturing, and design services to a variety of industries; these include automotive/transportation, alternative fuels, aerospace, defense, entertainment, and oil and gas. The company is headquartered in Livonia, MI, and employs over 4,000 people at locations across southeast Michigan, in Florida, and in Germany and South Korea.

The facility that makes up the stationary source with the assigned SRN M4780 is part of Roush Industries' Testing and Development Services. Within this group is Roush's Dynamometer Services. According to the company website, Roush Dynamometer Services has over 50 test sites/cells in their dynamometer labs that provide testing for automotive, truck, marine, defense and power generation applications. The labs are capable of performing development testing, durability testing, and hot testing. According to the 2018 MAERS report, there are 85 employees at the Roush facility that is the subject of this report.

The test sites/cells, referred to as engine dynamometer test cells (test cells), are located in Buildings 1, 15 and 16. Building 1, located at 12319 Levan Road, houses 22 test cells that are typically used for durability and development testing. Building 15, located at 36630 Commerce Street, contains five sets of single-ended test cells, and 7 sets of double-ended test cells. Building 16, located at 36580 Commerce Street, contains five sets of single-ended test cells and two sets of double-ended test cells. All of the test cells vent to the ambient air, and some of the test cells operate with emissions control devices, while others are operated uncontrolled.

As mentioned in the last section of this report, there are 12 buildings in the area, located along Levan Road and Commerce and Market Streets, that contain Roush operations. Based on information gathered both from the company's website and during discussions with Roush staff during the site visit, the other buildings appear to contain operations that are separate from those in Buildings 1, 15 and 16. These buildings appear to be part of different businesses and groups within the Roush company. For example, Building 28, which is located at 12068 Market Street to the south of Buildings 15 and 16, is a multi-use building that contains prototype and fabrication operations related to Roush's Entertainment Services group, working on amusement park rides. Other Roush buildings on Market Street contain noise vibration harshness (NVH) testing for the automotive and defense industries, a design studio, and a company museum.

Some of the processes and emission units associated with the testing operations at the Roush facility that is the subject of this report are addressed in the facility's Renewable Operating Permit (ROP). The following is a listing of the process equipment that is included in the Roush facility's current ROP:

- FG-Bld15TCells – this Flexible Group consists of five sets of single-ended engine dynamometer test cells and seven sets of double-ended engine dynamometer test cells that are located in Building 15.
- FG-Bld16TCells – this Flexible Group consists of five sets of single-ended engine dynamometer test cells with catalytic converters and two sets of double-ended engine dynamometer test cells without catalytic oxidizers that are located in Building 16.
- FGMACT6C – this Flexible Group consists of 11 underground fuel storage tanks with storage capacities ranging from 1,000 to 12,000 gallons. Per correspondence dated January 16, 2019, AQD was informed that Roush removed six of the storage tanks and replaced them with seven new underground fuel storage tanks, each having a storage capacity of 10,000 gallons.

## **Inspection Narrative**

I arrived at the facility at 12:55pm. I went to Building 15 where I was met by Tom Albert. He led me to a conference room where we were joined by Christina Mood.

We started our discussion by going over the background of the Roush operations along Commerce and Market Streets. Tom discussed the operations in Buildings 1, 15 and 16 – they are used for testing operations, and related fabrication and shop activities. He provided information about the operations in other Roush buildings along these streets – mentioning the amusement park ride activities in Building 28, the NVH activities taking place in some of the other buildings on Market, the design studio and the museum.

We discussed the operations in the buildings that make up the stationary source that is the subject of this site visit, and that is subject to the facility's ROP. I was told that the 22 test cells in Building 1 are used for testing of both internal products and needs and Roush customers. Some of the testing is performed with emissions controls; the use of controls is based on customer need. The cells are used for durability testing and development testing. The test cells in Buildings 15 and 16 are operated in a similar way. There are certain test cells in Building 16 that are designated as always being equipped and operating with emission controls (catalytic converters). The test cells in Building 15 operate such that the use of emission controls is customer specific.

We then discussed the facility's compliance with the ROP. We went through the conditions in the Flexible Group tables, and Christina showed me the records that the facility keeps in accordance with the requirements of the ROP. For FG-BLD15TCells and FG-BLD16TCells, I was told that the fuel usage in the test cells and associated emissions are monitored daily. I was told that the information is gathered by designated staff who monitor and compile the information, and provide the information to Christina who tracks it via a spreadsheet. We discussed the testing requirement in Section V of the two Flexible Groups, and I was told that the last compliance emissions tests were performed in 2016 for the Building 15 and 16 test cells. We discussed the Flexible Group that addresses the underground fuel storage tanks, FGMACT6C. Christina told me that some of the tanks that are addressed in the Flexible Group have been removed, and seven new tanks, each having a storage capacity of 10,000 gallons, were installed in their place. There are now 12 storage tanks – seven serving Building 16, and five serving Building 15. The facility's compliance with the requirements of the ROP will be discussed in further detail in the next section of this report.

After discussing the ROP, we toured the testing areas in Buildings 15 and 16. We walked through the test cell areas in both buildings. We looked at some of the test cell rooms, and the monitoring equipment that displays measurements taken during the testing.

After walking through the two buildings, we had some closing discussion summarizing the site visit. I left the facility at 2:50pm.

## **Permits/Regulations/Orders/Other**

### **Permits**

#### **Renewable Operating Permit**

Renewable Operating Permit (ROP) No. MI-ROP-M4780-2016 was issued to Roush to address the activities at the Roush facility with an effective date of January 8, 2016. The permit addresses the Flexible Groups that were described at the end of the "Facility Operations" section of this report.

The following paragraphs provide a description of the Roush facility's compliance with the terms and conditions put forth in ROP No. MI-ROP-M4780-2016, with the headings representing the sections of the ROP.

### **Source-Wide Conditions**

There are no Source-Wide Conditions applicable to the facility in ROP No. MI-ROP-M4780-2016.

### **FG-BLD15TCells**

This Flexible Group addresses the engine dynamometer test cells in Building 15. These include the test cells having Emission Unit designations EU-TCeIB15A, EU-TCeIB15B/C, EU-TCeIB15D, EU-TCeIB15E/F, EU-TCeIB15G/H, EU-TCeIB15I/J, EU-TCeIB15K/L, EU-TCeIB15M, EU-TCeIB15N/O, EU-TCeIB15P/Q, EU-TCeIB15RR and EU-TCeIB15S.

#### **I. Emission Limits**

Special Conditions (SCs) I.1 through I.5 put forth emission limits for the test cells in this Flexible Group. Christina provided me with spreadsheets for the months of April and May 2019 that show the fuel usage and emission calculations for these months.

Based on the information provided by Roush, it was demonstrated that calculated emissions are in compliance with permitted emission limits. For May 2019 (which is the last month for which completed records were available), the 12 month rolling NOx emissions are reported as 0.788 tons per year (tpy) versus the permitted

limit of 3.71 tpy; the reported 12 month rolling CO emissions are 19.451 tpy versus the permitted limit of 83.3 tpy; the highest reported 8 hour CO emissions total was 208 pounds (versus the permitted limit of 952.0 pounds per consecutive 8 hours) which was reported for May 4, 2019; the reported 12 month rolling 1,3-Butadiene emissions are 0.00180 tpy versus the permitted limit of 0.054 tpy; and there were no reported lead emissions due to no usage of racing fuel, which contains lead.

A copy of the spreadsheets that track emissions for April and May 2019 is attached to this report for reference.

II. Material Limits

SCs II.1 through II.5 put forth limits on the amount of fuel that can be consumed in the test cells in Building 15. The conditions put forth separate short term (daily) and long term (12 month rolling time period) restrictions on fuel usage for controlled and uncontrolled engines.

The same records that were referenced in the last section also provide fuel usage records that serve as the compliance demonstration for these fuel usage limits. The records for May 2019 show that rolling 12 month fuel usage without a catalyst (i.e. uncontrolled) was 11,123 gallons (versus the permitted limit of 70,000 gallons), and the 12 month rolling fuel usage with catalyst usage (i.e. controlled engines) was 16,603 gallons (versus the permitted limit of 166,000 gallons). For April and May 2019, the highest reported daily fuel usage for uncontrolled engines was 87 gallons on May 4 (the permitted limit is 1,200 gallons per day for uncontrolled engines), and the highest report daily fuel usage for controlled engines was 315 gallons on April 12 (the permitted limit is 3,815 gallons per day for controlled engines). There was no reported usage of leaded racing fuel in April and May, and the 12-month rolling total of racing fuel usage is reported as zero. Again, copies of the records for April and May 2019 are attached to this report for reference.

III. Process/Operational Restrictions

SC. III.1 states that the permittee shall not use leaded gasoline in any test cells that are controlled by catalytic converters, presumably to avoid fouling the catalyst. Roush did not use leaded fuel during the reporting period for which I reviewed records.

IV. Design/Equipment Parameters

There are no design/equipment parameters specified for this Flexible Group.

V. Testing/Sampling

SC V.1 requires that at least one per the term of the ROP, emissions testing shall be performed to measure emission rates of NOx, CO and 1,3-Butadiene. The last emissions testing that was performed on test cells in Building 15 in accordance with the requirements of this condition took place on April 6 and 7, 2016. During the test, the test cells designated as EU-TCeII15A, which was running a 2.5-liter displacement engine, and EU-TCeII15K, which was running a 4.6-liter displacement engine, were tested. These tests were performed on uncontrolled engines. Each engine was tested at two operating conditions – WorldWide Mapping Point (WWMP), which corresponds to 1,500 RPM, and at 3,750 RPM (2.5-liter engine) and 3,500 RPM (4.6-liter engine). The test report, which was submitted to AQD in correspondence dated June 13, 2016, states that WWMP "...is used in the automobile industry to characterize engine emissions and efficiency for various engines and applications", while the other operating condition "...represents the average operation over a full engine load curve." Three test runs were conducted on each engine at each operating condition, for a total of twelve 60-minute test runs for Building 15. The fuel consumption of the engines being tested in the test cell was monitored and recorded during each test run.

The results of the testing, as presented in the test report, showed the following:

Test Cell	Engine size	Operating condition	NOx (lb/gal), 3-run average	CO (lb/gal), 3-run average	1,3-Butadiene (lb/gal), 3-run average
EU-TCeII15A	2.5-liter V6	WWMP	0.18	0.33	<0.0002
EU-TCeII15A	2.5-liter V6	3,750 RPM	0.47	0.53	<0.0001
EU-TCeII15K	4.6-liter V8	WWMP	0.31	0.74	<0.0002
EU-TCeII15K	4.6-liter V8	3,500 RPM	0.48	0.51	<0.0001

Roush appears to be in compliance with testing requirements in this section of the Flexible Group.

#### VI. Monitoring/Recordkeeping

This section puts forth the monitoring and recordkeeping requirements for the test cells, for items such as fuel usage and emissions calculations. The records provided by Roush show compliance with the requirements in this section. Specifically:

SC VI.1 – the fuel usage in controlled and uncontrolled engines is monitored on a daily basis.

SC VI.2 – records of monthly and 12 month rolling NOx emission calculations are being kept.

SC VI.3 – records of monthly and 12 month rolling CO emission calculations are being kept.

SC VI.4 – the facility is maintaining records of the 8-hour emission rate for CO.

SC VI.5 – records of monthly and 12 month rolling lead emission calculations are being kept. The facility is reporting zero emissions as there was no usage of leaded fuel during the 12-month period going back from the earliest monthly record that I reviewed for Building 15 (April 2019).

SC VI.6 – records of monthly and 12 month rolling 1,3-Butadiene emission calculations are being kept.

SC VI.7 and VI.8 – the facility is maintaining daily and monthly records of fuel usage that specify fuel usage in controlled and uncontrolled engines.

SC VI.9 – the facility is maintaining monthly records of leaded fuel usage.

SC VI.10 – the condition requires that the facility keep records of the lead content in leaded fuel for each delivery of this type of fuel. The facility has not used or received leaded fuel for some time.

#### VII. Reporting

Roush is meeting the ROP reporting requirements in SCs VII.1 through VII.3.

SC VII.4 requires Roush to notify AQD if there is a change in the land use classification that was used to demonstrate compliance with Rule 225(1). There have been no notifications, and no known change to land use in the area of the Roush properties.

#### VIII. Stack/Vent Restrictions

The stack and vent parameters for the Building 15 test cells were not discussed in detail during the site visit. I was told that the stack parameters have not changed from what is listed in SCs VIII.1 through VIII.12.

#### IX. Other Requirements

There are no conditions in this section of the Flexible Group.

### **FG-BLD16TCells**

This Flexible Group addresses the engine dynamometer test cells in Building 16. These include the test cells having Emission Unit designations EU-TCellB16A1, EU-TCellB16B2, EU-TCellB16C3, EU-TCellB16D4, EU-TCellB16E5, EU-TCellB16F6/G7, EU-TCellB16H8/I9.

#### I. Emission Limits

Special Conditions (SCs) I.1 through I.4 put forth emission limits for the test cells in this Flexible Group. Christina provided me with spreadsheets for the months of March, April and May 2019 that show the fuel usage and emission calculations for these months. I was shown records back to March as the test cells were not used in April and May.

Based on the information provided by Roush, it was demonstrated that calculated emissions are in compliance

with permitted emission limits. For March 2019 (which is the last month that the test cells operated for which completed records were available), the 12 month rolling NOx emissions are reported as 1.81 tpy versus the permitted limit of 6.0 tpy; the reported 12 month rolling CO emissions are 15.44 tpy versus the permitted limit of 65.3 tpy; the highest reported 8 hour CO emissions total was 54 pounds (versus the permitted limit of 1,510 pounds per consecutive 8 hours) which was reported for March 16, 2019; and the reported 12 month rolling 1,3-Butadiene emissions are 0.00332 tpy versus the permitted limit of 0.423 tpy.

A copy of the spreadsheets that track emissions for March, April and May 2019 is attached to this report for reference.

II. Material Limits

SCs II.1 through II.3 put forth limits on the amount of fuel that can be consumed in the test cells in Building 16. The conditions put forth daily and 12 month rolling time period limits on fuel usage, and a separate fuel usage limit for the test cells that feature uncontrolled engines (EU-TCe11B16F6/G7 and EU-TCe11B16H8/I9).

The same records that were referenced in the last section also provide fuel usage records that serve as the compliance demonstration for these fuel usage limits. The records for March 2019 show that rolling 12 month fuel usage for the test cells operating without a catalyst (test cells F6/G7 and H8/I9) was 317 gallons (versus the permitted limit of 20,000 gallons), and the 12 month rolling fuel usage for all of the test cells in Building 16 was 51,108 gallons (versus the permitted limit of 160,000 gallons). The highest reported daily fuel usage for Building 16 was 250 gallons, which was reported for March 9, 2019 (the permitted limit is 3,748 gallons for the test cells in Building 16). Copies of the records for March, April and May 2019 are attached to this report for reference.

III. Process/Operational Restrictions

There are no process/operational restrictions put forth in this section of the Flexible Group.

IV. Design/Equipment Parameters

SC IV.1 requires that each of the test cells in Building 16, with the exception of test cells F6/G7 and H8/I9, are to be equipped with a catalytic converter. Roush is in compliance with this requirement.

V. Testing/Sampling

SC V.1 requires that within 180 days of permit issuance, emissions testing was to be performed to measure emission rates of NOx, CO and 1,3-Butadiene. Emissions testing on the test cells in Building 16 took place on April 20 and 21, 2016. During the test, the test cells designated as EU-TCe11B16A1, which was running a 2.5-liter displacement engine, and EU-TCe11B16B2, which was running a 4.6-liter displacement engine, were tested.

These tests were performed on engines that exhausted through a catalytic converter. Each engine was tested at two operating conditions – WorldWide Mapping Point (WWMP), which corresponds to 1,500 RPM, and at 3,750 RPM (2.5-liter engine) and 3,500 RPM (4.6-liter engine). The test report, which was submitted to AQD in correspondence dated June 13, 2016, states that WWMP "...is used in the automobile industry to characterize engine emissions and efficiency for various engines and applications", while the other operating condition "...represents the average operation over a full engine load curve." Three test runs were conducted on each engine at each operating condition, for a total of twelve 60-minute test runs for Building 16. The fuel consumption of the engines being tested in the test cell was monitored and recorded during each test run.

The results of the testing, as presented in the test report, showed the following:

Test Cell	Engine size	Operating condition	NOx (lb/gal), 3-run average	CO (lb/gal), 3-run average	1,3-Butadiene (lb/gal), 3-run average
EU-TCe11B16A1	2.5-liter V6	WWMP	0.16	0.33	<0.0001
EU-TCe11B16A1	2.5-liter V6	3,750 RPM	0.16	0	<0.000001
EU-TCe11B16B2	4.6-liter V8	WWMP	0.30	0.75	<0.0001
EU-TCe11B16B2	4.6-liter V8	3,500 RPM	0.16	0	<0.0000002

Roush appears to be in compliance with the testing requirements in the Flexible Group.

VI. Monitoring/Recordkeeping

This section puts forth the monitoring and recordkeeping requirements for the test cells, for items such as fuel usage and emissions calculations. The records provided by Roush show compliance with the requirements in this section. Specifically:

SC VI.1 – the fuel usage in the Building 16 test cells is monitored and recorded on a daily basis.

SC VI.2 – records of monthly and 12 month rolling NO<sub>x</sub> emission calculations are being kept for the Building 16 test cells.

SC VI.3 – records of monthly and 12 month rolling CO emission calculations are being kept.

SC VI.4 – the facility is maintaining records of the 8-hour emission rate for CO.

SC VI.5 – records of monthly and 12 month rolling 1,3-Butadiene emission calculations are being kept.

SC VI.6 – this condition once again requires that Roush keep daily fuel use records for the test cells in Building 16. The facility is complying with this requirement.

SC VI.7 – the facility is maintaining monthly records of fuel usage.

#### VII. Reporting

Roush is meeting the ROP reporting requirements in SCs VII.1 through VII.3.

Like in FG-Bld15TCells, SC VII.4 requires Roush to notify AQD if there is a change in the land use classification that was used to demonstrate compliance with Rule 225(1). There have been no notifications, and no known change to land use in the area of the Roush properties.

#### VIII. Stack/Vent Restrictions

The stack and vent parameters for the Building 16 test cells were not discussed in detail during the site visit. I was told that the stack parameters have not changed from what is listed in SCs VIII.1 through VIII.7.

#### IX. Other Requirements

There are no conditions in this section of the Flexible Group.

### **FGMACT6C**

This Flexible Group addresses the gasoline storage tanks at the Roush facility. The Flexible Group table puts forth the requirements of 40 CFR Part 63, Subpart CCCCCC (National Emission Standards for Hazardous Air Pollutants for Gasoline Dispensing Facilities). Subpart CCCCCC applies to area sources of HAP emissions. At this time, the Roush facility is classified as a minor (area) source of HAP emissions. The description for the Flexible Group states that "this flexible group includes existing and new/reconstructed stationary gasoline dispensing facilities (GDFs) located at an area source of hazardous air pollutants (HAPs) that have a maximum monthly gasoline throughput of less than 100,000 gallons."

Correspondence dated January 16, 2019 was sent to AQD by Fishbeck, Thompson, Carr & Huber, Inc. on behalf of Roush in relation to the storage tanks. The correspondence and accompanying documentation serve to notify AQD of an Off-Permit Change, as described in Rule 215(3), in relation to the removal of six existing underground storage tanks, and their replacement with seven 10,000-gallon underground storage tanks. The correspondence includes a PTI exemption analysis for the new storage tanks, which states that the storage tanks meet the PTI exemption criteria in Rule 284(2)(g)(iii). The correspondence also explicitly states that that seven new tanks are subject to Subpart CCCCCC. It is stated that when the ROP renewal application is submitted for the Roush facility (an administratively complete application is due between July 8, 2019 and July 8, 2020), the references to the storage tanks that were removed will be taken out of the ROP, and the new tanks will be added as emission units and included in the FGMACT6C Flexible Group. A copy of the Off-Permit Change correspondence can be found in the Roush M4780 facility file.

Regarding the requirements in FGMACT6C, the facility looks to be in compliance. There are no emission or material limits set forth in the Flexible Group. SC III.1 puts forth operational requirements for GDFs with monthly throughputs greater than 10,000 gallons relating to handling of gasoline and cleaning of spills. SC III.2 puts forth

requirements for GDFs with monthly throughputs greater than 10,000 and less than 100,000 gallons relating to submerged filling requirements. As described in the write-ups for the Flexible Groups for Buildings 15 and 16, Roush tracks the fuel usage at the facility on different time bases, including monthly records. I was proved with two spreadsheets, one each for the tanks associated with Buildings 15 and 16, that provides a monthly overview of the on-site volumes for the tanks by fuel type. These records serve to demonstrate that the monthly usage of gasoline is less than 100,000 gallons.

### **Regulations**

The gasoline storage tanks at the facility are subject to the requirements of 40 CFR Part 63, Subpart CCCCCC.

There is also Federal NESHAP for engine test stands, 40 CFR Part 63, Subpart PTTTTT (National Emission Standard for Hazardous Air Pollutants for Engine Test Cells/Stands). This Subpart applies to owners and operators of engine test cells/stands that are located at a major source of HAP emissions; there is not a separate, so-called area source MACT for the engine test cells/stands source category. The Roush facility is currently classified as a minor (area) source of HAP emissions, so Subpart PTTTTT does not apply to the facility at this time.

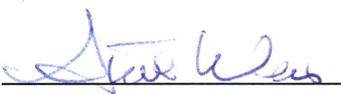
During the next FCE (full compliance evaluation) of this Roush facility, the PTE of HAP emissions will be revisited to ensure that all of the potential sources of HAP emissions at the facility are included in the PTE determination. The emission factors for HAPs that are used for the test cells operating in Buildings 1, 15 and 16 will be discussed and confirmed.

In addition, the permit exempt status of the engine dynamometer test cells operating in Building 1 will be discussed with the company to determine whether the equipment has been modified in any way that may have changed its permit exempt status.

### **Compliance Determination**

Based upon the results of the June 27, 2019 site visit, and a review of the facility's compliance records, the Roush Industries facility on Commerce Street in Livonia appears to be **in compliance** with applicable rules and regulations, including with the terms and conditions of ROP No. MI-ROP-M4780-2016.

Attachments to this report: a copy of a map from Roush's website that shows the Roush operations near Levan Road in Livonia; a copy of a ISO 9001 certification for Roush that provides building numbers and addresses for operations in Livonia; facility records for Buildings 15 and 16 that show fuel usage and emission calculations associated with the engine dynamometer test cells operating in these buildings.

NAME 

DATE 9/13/19

SUPERVISOR 