

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

M478020013

FACILITY: ROUSH INDUSTRIES		SRN / ID: M4780
LOCATION: 36630 COMMERCE, LIVONIA		DISTRICT: Detroit
CITY: LIVONIA		COUNTY: WAYNE
CONTACT: Jeff Carter, Supervisor		ACTIVITY DATE: 12/03/2012
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Engine Testing emissions		
RESOLVED COMPLAINTS:		

INSPECTED BY : Terseer Hemben, MDEQ
PERSONNEL PRESENT : Robert Mullenax, Manager
Christina Mood, Env. Eng.
FACILITY PHONE NUMBER : (734)-779-7647
FACILITY FAX : (734) - 779-7915
DATE OF INSPECTION : 12/3/2012
SRN: M4780

FACILITY BACKGROUND: ROUSH INDUSTRIES

Roush Industries is an engineering and development company specializing in the area of high-performance engines and related components, such as Powertrains, and instrumentation. In addition, Roush owns and operates, produces, and markets merchandise associated with the automobile racing team.

As part of the operations, Roush owns a group of buildings along the Levan Road Industrial corridor in the Livonia community. Operations of the engineering and development business take place in three buildings designated as Bldg. 1, 15 and 16. The operations are primarily related to testing of performance and durability of internal combustion engines and related components. About 110 employees work in bldg. 1, approximately 20 employees work in bldg 15, and 10 work in bldg 16 (Appendix 1 & 2) The three buildings are grouped as a single stationary source according to Title V determination. These three buildings met the 3 criteria for classification: 1) the properties are contiguous; 2) the properties are under common ownership and control; 3) operations at all the three buildings fall under the same standard industrial classification major group (the 87 group, which comprises engineering, accounting and related services).

There are 20 internal combustion engine test cell in Bldg 1. These test cells are grandfathered from permitting requirements, and their operation is not restricted by new source review permit conditions. The test cells in buildings 15 and 16 (which contain 12 and 9 internal combustion test cells, respectively) were recently installed. Their operation is restricted by the new Source Review permits. Currently, the test cells in building 15 operate per terms and conditions put forth in permit No. 424-99. Test cells in building 16, which are the most recently installed at the facility, are used strictly for durability testing of engines and related parts. The cells operate per the terms and conditions of permit No. 101-00. The facility operates on a New Source permit requirements. Information from the AQD files identifies Roush as responding to consent order requirements.

The test cells are typically operated in two shifts, six days per week, ad 52 weeks per year. Test cells primarily use unleaded gasoline-fired engines, but some engines are fueled by methanol, compressed natural gas, and LPG. The permits do not limit the amount of fuel type used in the testing. The permits limit total heat input to the engines tested in the test cells, both on a daily and monthly basis.

Practically, the Bldg 15 test cells use Gasoline with Octane Numbers 87 and 93 with typical run time of 4 hrs, and Diesel engines. These cells are run with or without catalyst conversion technology. The test cells are equipped with analyzers for emissions tracking. The Bldg16 carries out durability testing that last 4-6 hours long. Engines run continuously for 4 hours. The Bldg 15 shares two 12,000 gallon fuel tanks with Bldg 16. Bldg 16 does not use Liquefied gas. Bldg 1 is equipped with test cells that are rated "grandfathered". The engines were installed in 1976, and shares two 4000gallon, two 12000 gallon tanks with bldg16. Durability testing takes 6 days a week employing 2 shift schedules. Roush replaces the engines in Bldg 1 with reconditioned dynamometers only.

INSPECTION NARRATIVE

I arrived at the premises of Roush Industries on December 3, 2012 at about 1230 hours for a scheduled inspection at Roush Industries facility. The purpose of the inspection was to determine annual compliance with the source's ROP conditions and operational limits. Temperature at the hour was 54 F with wind speed 5.8 mph coming from the SSE, and humidity 41%. I met with Robert Mullenax and Ms. Christina Mood. We went through pre-inspection conference in the Bldg 15 Conference room. Mr. Robert Mullenax led us in the inspection of building 15, 16, and 1. We concluded the inspection with a post-inspection conference. I intimated the Roush Team there was no physical violations observed at site. However, the final report will relate findings from recorkeeping and emissions data. I left the facility at 1440 hours.

COMPLAINT/COMPLIANCE HISTORY:

Roush Industries has not been a source of citizen air quality complaints since the last annual inspection.

OUTSTANDING CONSENT ORDERS:

Roush terminated the consent order they entered with the AQD following a previous violation.

OUTSTANDING LOV'S:

None

OPERATING SCHEDULE/PRODUCTION RATE:

The facility is capable of operating 24 hours per day, 365 days per year. At the time of this inspection, the facility was operating 16 hours a day (for Bldg 15 & 16) with several test cells setting idle.

EQUIPMENT AND PROCESS CONTROLS:

Roush operates engine test cells in the three buildings listed above.

APPLICABLE RULES/PERMIT # MI-ROP-M4780-2009 CONDITIONS:

Permit Special # MI-ROP-M4780-2009 Conditions require the following fulfillment:

1. In compliance- Roush demonstrated there has not been any modification to any Bldg16Tcells system or process at the facility in the last 12 months (Response Item #1 attached).
2. In compliance –Roush demonstrated the double ended test cells in Bldg 16 were not operated simultaneously. Records for the last 12 months indicated there is one controller located in the center of two dynamometers in the combined cell and it is incapable of running two engines simultaneously. (Bldg 16 #2).
3. In compliance – Roush demonstrated the maximum emissions of NOx in Bld16Tcells did not exceed 6.0 tpy based on 12-month rolling time period determined at each end of calendar month [SC I.1] Records covering the last 12 months reflecting rolling average calculations indicated the highest NOx emissions amounted 2.86 tpy (Document# 1, July).
4. In compliance – Roush demonstrated the maximum amount of emissions of CO in Bld16Tcells did not exceed 1, 510 pounds per conservative 8 hours [SC I.2]. Records covering the last 12 months indicated the highest CO emissions per hour recording was 221 lb/8 hrs and occurred on 6/21/2012 (Doc. # 2).
5. In compliance – Roush demonstrated the maximum amount of emissions of CO in Bld16Tcells did not exceed 65.3 tpy based on 12-month rolling time period determined at each end of calendar month [SC I.3].] Records covering the last 12 months reflecting rolling average calculations indicated the highest CO emissions for the period was 29.47 tpy (DOC#1, July)
6. In compliance - Roush demonstrated the maximum amount of 1, 3 Butadiene emissions in Bldg16Tcells did not exceed 0.423 tpy based on 12-month rolling time period [SC I.4].] Records covering the last 12 months reflecting rolling average calculations indicated the highest 1, 3 Butadiene emissions for the period was 0.00507 tpy (DOC# 1, September).
7. In compliance - Roush demonstrated the maximum fuel usage in EU-TcellB16F6/G7 and EU-TcellB16H8/I9 did not exceed 20,000 gal/yr based on 12-month rolling time period [SC II.1].] Records covering the last 12 months reflecting rolling average calculations indicated the highest fuel usage for the period was 6,146 gal per year (DOC#1, August).
8. In compliance - Roush demonstrated the Maximum fuel usage in Bldg16Tcells did not exceed 3,748 gallons/day based on daily time period [SC II.2].] Records covering the last

- 12 months reflecting rolling average calculations indicated the highest total fuel usage for the period was 1493 gallons per year and occurred on 1/13/2012 (DOC# 2),.
9. In compliance - Roush demonstrated the Maximum fuel usage in Bldg16Tcells did not exceed 160, 000gallon/yr based on 12-month rolling time period [SC II.3].] Records covering the last 12 months reflecting rolling average calculations indicated the maximum fuel usage for the period was 78,028 gallons per year (DOC# 1, Sept, 2012) .
 10. In compliance - Roush demonstrated each emission unit in Bldg16Tcells, except EU-TCeII16F6/G7 and EU-TCeII16H8/I9, was equipped and maintained with a catalytic converter [IV.1].] Records covering the last 12 months reflecting rolling average calculations indicated the records were satisfactorily kept (DOC# 1).
 11. In compliance - Roush confirmed that within 180 days after permit issuance, verification of NOx, CO, and 1, 3-Butadiene emission rates from a representative number of test cells in FG-Bld16TCells were tested, at owner's expense, in accordance with Department requirements and submitted to the AQD [SC V.1]. Cover letter confirms the communication of results was made to AQD on July 21, 2010.
 12. In compliance - Roush demonstrated the fuel usage monitoring for FG-Bld16TCells was performed on a daily basis in a satisfactory manner [SC VI.1]. DOC# 2 confirmed the practice.
 13. In compliance - Roush demonstrated the monthly and previous 12 month NOx emission calculation records for FG-Bld16TCells were kept in a satisfactory manner. [SC VI.2]. DOC# 1 confirmed the practice.
 14. In compliance - Roush demonstrated monthly and previous 12-month CO emission calculation records for FG-Bld16TCells were kept in a satisfactory manner [SC VI.3]. DOC# 1 confirmed the practice.
 15. In compliance - Roush demonstrated the 8-hour CO emission rate had been calculated based upon daily records prorated to an 8-hour rate [SC VI.4]. DOC# 2 confirmed the calculations.
 16. In compliance – Roush demonstrated monthly and previous 12-month 1.3-butadiene emission calculation records for FG-Bld16TCells were kept in a satisfactory manner [SC VI.5]. DOC# 1 confirmed the practice.
 17. In compliance – Roush demonstrated daily fuel use records for FG-Bld16TCells were kept in a satisfactory manner [SC VI.6]. DOC# 1 confirmed the practice.
 18. In compliance - Roush demonstrated monthly fuel use records for FG-Bld16TCells were kept in a satisfactory manner [SC VI.7]. DOC# 1 confirmed the practice.
 19. About 16 employees work at this unit on full time basis.

Building 15.

20. In compliance - Roush demonstrated there has not been any modification to any Bldg15Tcells system or process at the facility in the last 12 months. Site tour confirmed.
21. In compliance – Roush demonstrated the monthly and previous 12 month NOx emission calculation records for FG-Bld15TCells were kept in a satisfactory manner [3.71 tpy limit; SC I.1]. DOC# 3 indicated the highest NOx emissions were 0.947 tpy.
22. In compliance – Roush demonstrated monthly and previous 12-month CO emission calculation records for FG-Bld15TCells were kept in a satisfactory manner [83.3 tpy based on 12-months rolling t-p SC I.2]. DOC# 3 indicated the highest CO emissions were 22.301 tpy.
23. In compliance – Roush demonstrated the 8-hour CO emission rate for FG-Bld15TCell was calculated based upon daily records prorated to an 8-hour rate [952 lb/8 hour SC I.3]. DOC# 4 indicated the highest CO emissions per 8 hour rating were 444 lbs/8hrs, May, 2012.
24. In compliance -Roush demonstrated monthly and previous 12-month Lead emission calculation records for FG-Bld15TCells were kept in a satisfactory manner [0.132 tpy based on 12-months rolling time period [SC I.5]. DOC# 3 indicated 0.00 tpy of lead emissions.
25. In compliance - Roush demonstrated monthly and previous 12-month 1.3-butadiene emission calculation records for FG-Bld15TCells were kept in a satisfactory manner [0.054 tpy based on 12-month rolling time period [SC I.4]. DOC# 3 indicated the highest 1, 3-Butadiene emissions were 0.00159 tpy.
26. In compliance - Roush demonstrated the monitoring of fuel usage for FG-Bld15TCells was performed on a daily basis in a satisfactory manner [1,200 gal/day for uncontrolled engines; SC II.1]. DOC# 4 indicated total fuel usage was 371 gallons per day (May, 2012).
27. In compliance – Roush demonstrated the monitoring of fuel usage for FG-Bld15TCells was performed on a daily basis in a satisfactory manner [3,815 gal/day for controlled engines; SC II.2]. DOC# 4 indicated the highest fuel usage in controlled engines was 290 gallons per day.

28. In compliance – Roush demonstrated the monitoring of fuel usage for FG-Bld15TCells was performed on a daily basis in a satisfactory manner [70,000 gal/yr for uncontrolled engines based on 12-months rolling time period; SC II.3]. DOC# 4 indicated the highest fuel usage for uncontrolled engines was 16,176 gallons per month.
29. In compliance - Roush demonstrated the monitoring of fuel usage for FG-Bld15TCells was performed on a daily basis in a satisfactory manner [166,000 gal/yr for controlled engines based on 12-months rolling t-p; SC II.4]. DOC# 3 indicated the highest amount of fuel used was 9,882 gallons per month.
30. In compliance - Roush demonstrated the monitoring of leaded fuel usage for FG-Bld15TCells was performed on a daily basis in a satisfactory manner [30,000 gal/yr based on 12-months rolling t-p; SC II.5]. DOC# 3 indicated the amount of leaded fuel used was 0 gallons/year.
31. In compliance - Roush demonstrated the permittee did not use leaded gasoline in any of FG-Bld15TCells that are controlled by catalytic converters [SC III.1]. DOC# 3 confirmed.
32. In compliance -Roush demonstrated at least once per ROP term, verification of NOx, CO, and 1, 3-Butadiene emission rates from a representative number of test cells in FG-Bld15TCells by testing, at owner's expense, in accordance with Department requirements, was performed and results communicated to the AQD [SC V.1]. Cover letter confirmed the results were communicated in July 21, 2010.
33. In compliance - Roush demonstrated permittee monitored, in a satisfactory manner, the fuel usage for controlled and uncontrolled engines in FG-Bld15TCells on a daily basis [SC VI.1]. DOC# 4 confirmed
34. In compliance – Roush demonstrated the permittee kept, in a satisfactory manner, monthly and previous 12-month NOx emission calculation records for FG-Bld15TCells [SC VI.2]. DOC# 3 confirmed.
35. In compliance – Roush demonstrated the permittee kept, in a satisfactory manner, monthly and previous 12-month CO emission calculation records for FG-Bld15TCells [SC VI.3]. DOC# 3 confirmed.
36. In compliance – Roush demonstrated the 8-hour CO emissions rate were calculated based upon daily records, prorated to an 8-hour rate. Should the prorated emission rate exceed 90 percent of the limit, the permittee did keep 8-hour records for a minimum of two months until the emission rate fell below 90 percent of the limit [SC VI.4]. DOC# 4 confirmed.
37. In compliance - Roush demonstrated the permittee kept, in a satisfactory manner, monthly and previous 12-month lead emission calculation records for FG-Bld15TCells [SC VI.5]. DOC# 3 confirmed.
38. In compliance - Roush demonstrated the permittee kept, in a satisfactory manner, monthly and previous 12-month 1, 3-butadiene emission calculation records for FG-Bld15TCells [SC VI.6]. DOC# 3 confirmed.
39. In compliance - Roush demonstrated the permittee kept, in a satisfactory manner, daily fuel use records for FG-Bld15TCells. The records specified the fuel usage for engines equipped with catalytic converters and the fuel usage for uncontrolled engines [SC VI.7]. DOC# 4 confirmed.
40. In compliance - Roush demonstrated the permittee kept, in a satisfactory manner, monthly fuel use records for FG-Bld15TCells. The records specified the fuel usage for engines equipped with catalytic converters and the fuel usage for uncontrolled engines [SC VI.8]. DOC# 4 confirmed.
41. In compliance - Roush demonstrated the permittee kept, in a satisfactory manner, monthly leaded fuel use records for FG-Bld15TCells [SC VI.9]. DOC# 4 confirmed.
42. In compliance - Roush demonstrated the permittee kept, in a satisfactory manner, records of the maximum lead content in the leaded fuel for each delivery [SC VI.10]. DOC# 4 confirmed no lead content in leaded fuel had been in use since 2005

Inspection Areas of Focus:

1. Building 1 – 22 uncontrolled cells – Engine Dynamometer test cells: General. The area and equipment were well and up kept.
2. Building 15- Controlled cells- Engine Dynamometer test cells – The work area and equipment were well and up kept.
3. Building 16 – Controlled cells – Engine Dynamometer test cells –The work area and equipment were well and up kept.
4. Visible emissions on Bldg1, 15 & 16Tcells. – There were no visible emissions at the time of inspection.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

This facility does not have nor is in need of a fugitive dust plan.

MAERS REPORT REVIEW:

Roush's, 2011 MAERS submittal was reviewed. The report indicated the facility achieved considerable reductions in emissions.

FINAL COMPLIANCE DETERMINATION:

Based on the 2013 inspection, and the MAERS 2011 report, the Roush Industries facility was determined in compliance with the applied rules and regulations requirement of permit #MI-ROP-M4780-2010 pertaining to CO, NOx, 1,3, Butadiene, and fuel usage.

NAME JL

DATE 1/23/13

SUPERVISOR W.M

History for Detroit, MI

Monday, December 3, 2012

Monday, December 3, 2012

« Previous Day

December 3 2012

[View](#)

Next Day »

[Daily](#)

[Weekly](#)

[Monthly](#)

[Custom](#)

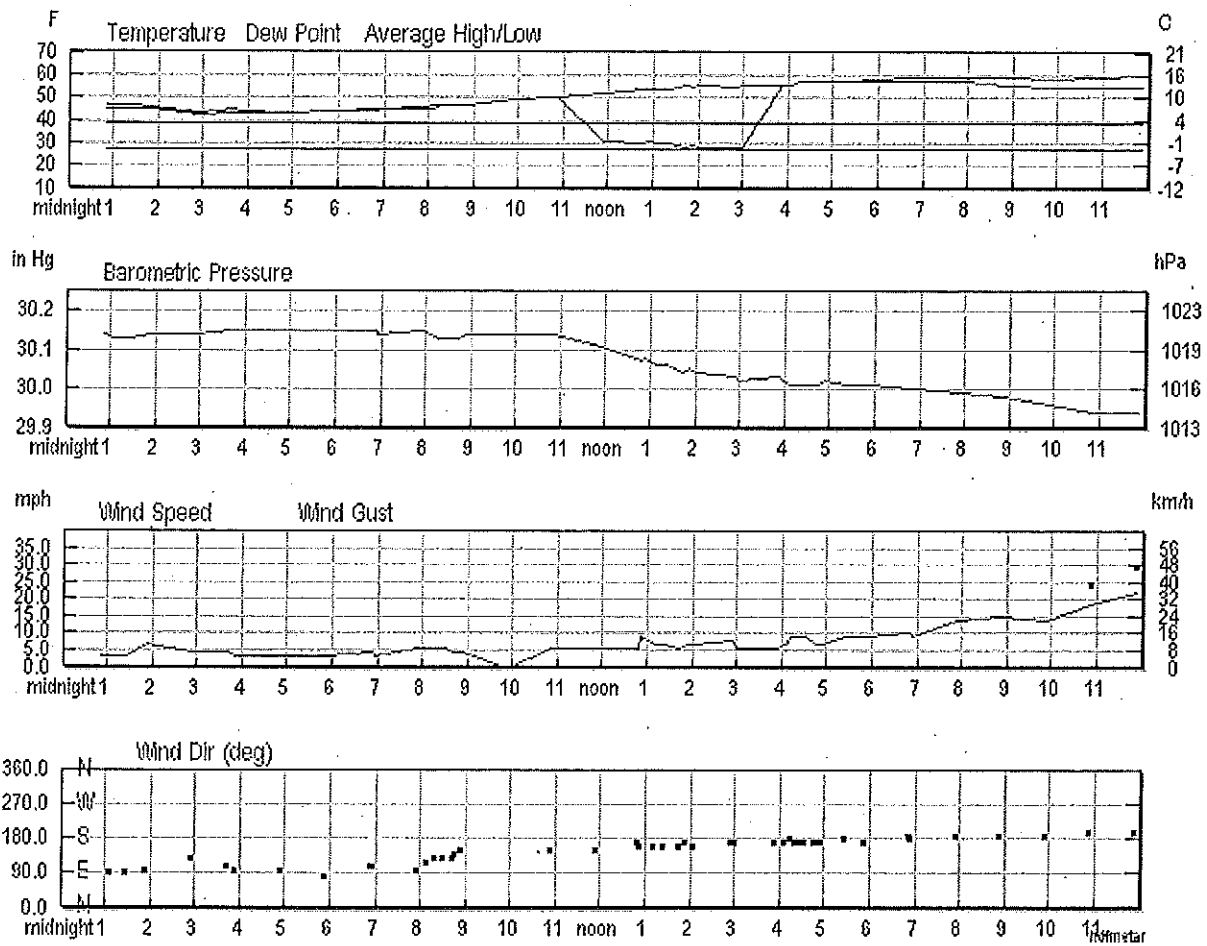
	Actual	Average	Record
Temperature			
Mean Temperature	51 °F	-	
Max Temperature	60 °F	39 °F	68 °F (1982)
Min Temperature	43 °F	27 °F	5 °F (2002)
Degree Days			
Heating Degree Days	14		
Growing Degree Days	1 (Base 50)		
Moisture			
Dew Point	46 °F		
Average Humidity	84		
Maximum Humidity	100		
Minimum Humidity	35		
Precipitation			
Precipitation	0.01 in	-	- ()
Sea Level Pressure			
Sea Level Pressure	30.07 in		
Wind			
Wind Speed	6 mph (SSE)		
Max Wind Speed	22 mph		
Max Gust Speed	30 mph		
Visibility	4 miles		
Events	Fog		

Averages and records for this station are not official NWS values.

T = Trace of Precipitation, MM = Missing Value

Source: NWS Daily Summary

[Seasonal Weather Averages](#)



Certify This Report

Hourly Observations

Time (EST)	Temp.	Windchill	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust S
12:53 AM	46.9 °F	-	45.0 °F	93%	30.14 in	7.0 mi	East	3.5 mph	-
1:04 AM	46.4 °F	45.2 °F	44.6 °F	93%	30.13 in	7.0 mi	East	3.5 mph	-
1:27 AM	46.4 °F	45.2 °F	44.6 °F	93%	30.13 in	7.0 mi	East	3.5 mph	-
1:53 AM	46.0 °F	42.5 °F	45.0 °F	96%	30.14 in	6.0 mi	East	6.9 mph	-
2:53 AM	43.0 °F	40.3 °F	42.1 °F	97%	30.14 in	6.0 mi	SE	4.6 mph	-
3:42 AM	44.6 °F	42.2 °F	42.8 °F	93%	30.15 in	5.0 mi	ESE	4.6 mph	-

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Time (EST)	Temp.	Windchill	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust S
3:53 AM	44.1 °F	42.5 °F	43.0 °F	96%	30.15 in	5.0 mi	East	3.5 mph	-
4:53 AM	43.0 °F	41.3 °F	43.0 °F	100%	30.15 in	4.0 mi	East	3.5 mph	-
5:53 AM	44.1 °F	42.5 °F	44.1 °F	100%	30.15 in	4.0 mi	East	3.5 mph	-
6:53 AM	45.0 °F	42.6 °F	44.1 °F	97%	30.15 in	5.0 mi	ESE	4.6 mph	-
6:55 AM	44.6 °F	43.1 °F	44.6 °F	100%	30.14 in	5.0 mi	ESE	3.5 mph	-
7:53 AM	46.0 °F	43.1 °F	45.0 °F	96%	30.15 in	5.0 mi	East	5.8 mph	-
8:08 AM	46.4 °F	43.5 °F	44.6 °F	93%	30.14 in	3.0 mi	ESE	5.8 mph	-
8:18 AM	46.4 °F	43.5 °F	46.4 °F	100%	30.13 in	2.5 mi	SE	5.8 mph	-
8:29 AM	46.4 °F	43.5 °F	46.4 °F	100%	30.13 in	1.2 mi	SE	5.8 mph	-
8:41 AM	46.4 °F	44.3 °F	46.4 °F	100%	30.13 in	0.5 mi	SE	4.6 mph	-
8:46 AM	46.4 °F	44.3 °F	46.4 °F	100%	30.13 in	0.2 mi	SE	4.6 mph	-
8:53 AM	46.9 °F	-	46.9 °F	100%	30.14 in	0.2 mi	SSE	4.6 mph	-
9:53 AM	48.9 °F	-	48.9 °F	100%	30.14 in	0.2 mi	Calm	Calm	-
10:53 AM	50.0 °F	-	50.0 °F	100%	30.14 in	0.2 mi	SSE	5.8 mph	-
11:53 AM	52.0 °F	-	30.9 °F	45%	30.11 in	0.2 mi	SSE	5.8 mph	-
12:50 PM	53.6 °F	-	30.2 °F	41%	30.07 in	0.8 mi	South	5.8 mph	-
12:53 PM	54.0 °F	-	30.9 °F	41%	30.08 in	1.0 mi	SSE	9.2 mph	-
1:11 PM	53.6 °F	-	30.2 °F	41%	30.06 in	2.0 mi	SSE	6.9 mph	-
1:25 PM	53.6 °F	-	30.2 °F	41%	30.06 in	1.2 mi	SSE	6.9 mph	-
1:44 PM	55.4 °F	-	28.4 °F	36%	30.04 in	0.5 mi	SSE	5.8 mph	-
1:53 PM	55.0 °F	-	28.9 °F	37%	30.05 in	0.5 mi	South	6.9 mph	-
2:03 PM	55.4 °F	-	28.4 °F	36%	30.04 in	0.2 mi	SSE	6.9 mph	-
2:53 PM	55.0 °F	-	28.0 °F	35%	30.03 in	0.2 mi	South	8.1 mph	-
3:00 PM	55.4 °F	-	28.4 °F	36%	30.02 in	0.5 mi	South	5.8 mph	-
3:53 PM	55.9 °F	-	55.9 °F	100%	30.03 in	0.8 mi	South	5.8 mph	-
4:07 PM	55.4 °F	-	55.4 °F	100%	30.01 in	1.2 mi	South	6.9 mph	-
4:13 PM	57.2 °F	-	57.2 °F	100%	30.01 in	2.0 mi	South	9.2 mph	-
4:20 PM	57.2 °F	-	57.2 °F	100%	30.01 in	2.5 mi	South	9.2 mph	-
4:28 PM	57.2 °F	-	57.2 °F	100%	30.01 in	3.0 mi	South	9.2 mph	-

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Time (EST)	Temp.	Windchill	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust S
4:32 PM	57.2 °F	-	57.2 °F	100%	30.01 in	2.5 mi	South	9.2 mph	-
4:45 PM	57.2 °F	-	57.2 °F	100%	30.01 in	2.5 mi	South	6.9 mph	-
4:53 PM	57.0 °F	-	57.0 °F	100%	30.02 in	3.0 mi	South	6.9 mph	-
5:25 PM	57.2 °F	-	57.2 °F	100%	30.01 in	5.0 mi	South	9.2 mph	-
5:53 PM	57.9 °F	-	57.0 °F	97%	30.01 in	5.0 mi	South	9.2 mph	-
6:50 PM	59.0 °F	-	57.2 °F	94%	30.00 in	7.0 mi	South	10.4 mph	-
6:53 PM	59.0 °F	-	57.0 °F	93%	30.00 in	7.0 mi	South	9.2 mph	-
7:53 PM	59.0 °F	-	57.0 °F	93%	29.99 in	8.0 mi	South	13.8 mph	20.7 m
8:53 PM	59.0 °F	-	55.9 °F	90%	29.98 in	10.0 mi	South	15.0 mph	-
9:53 PM	57.9 °F	-	55.0 °F	90%	29.96 in	10.0 mi	South	13.8 mph	24.2 m
10:53 PM	59.0 °F	-	55.0 °F	87%	29.94 in	10.0 mi	SSW	18.4 mph	24.2 m
11:53 PM	60.1 °F	-	55.0 °F	83%	29.94 in	10.0 mi	SSW	21.9 mph	29.9 m

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TH



**Inspection Report:
Roush Industries Inc.**

MI ROP-M4780-2010; SRN M4780
36630 Commerce St
Livonia, MI 48150

Contact Information:
Robert Mullenax
(734)779-7647

**2012 Inspection
Roush Industries
12/3/12**

Building 16

1. Please demonstrate there has not been any modification to any Bld16Tcells system or process at the facility in **the last 12 months**.

No changes have occurred in Building 16, verified in tour.

2. Please demonstrate that the double ended test cells in Bldg 16 are not operated simultaneously. **Request records for the last 12 months (R336.1201).**

One controller is located in the center of two dynamometers in the combined test cell and it is incapable of running two engines simultaneously.

3. Please demonstrate the maximum emissions of NO_x in Bld16Tcells do not exceed 6.0 tpy based on 12-month rolling time period determined at each end of calendar month [SC I.1] **Request records for the last 12 months reflecting rolling average calculations.**

(See Attached) – Doc #1.

4. Please demonstrate the maximum amount of emissions of CO in Bld16Tcells did not exceed 1, 510 pounds per conservative 8 hours [SC I.2]. **Request records for the last 12 months.**

(See Attached) – Doc #2.

5. Please demonstrate the maximum amount of emissions of CO in Bld16Tcells did not exceed 65.3 tpy based on 12-month rolling time period determined at each end of calendar month [SC I.3]. **Request records for the last 12 months.**

(See Attached) – Doc #1.

6. Please demonstrate the maximum amount of 1,3 Butadiene emissions in Bldg16Tcells do not exceed 0.423 tpy based on 12-month rolling time period calculations. [SC I.4]. **Request records for the last 12 months.**

(See Attached) – Doc #1.

7. Please demonstrate that maximum fuel usage in EU-TcellBldg16F6/G7 and EU-TcellBldg16H8/I9 does not exceed 20,000 gal/yr based on 12-month rolling time period. [SC II.1]. **Request records for the last 12 months.**

(See Attached) – Doc #1.

8. Please demonstrate the Maximum fuel usage in Bldg16Tcells does not exceed 3,748 gallons/day based on daily time period [SC II.2].

(See Attached) – Doc #2.

9. Please demonstrate that Maximum fuel usage in Bldg16Tcells does not exceed 160,000 gallon/yr based on 12-month rolling time period. [SC II.3]. **Request records for the last 12 months.**

(See Attached) – Doc #1.

10. Please demonstrate each emission unit in Bldg16TCells, except EU-TCe11B16F6/G7 and EU-TCe11B16H8/I9, is equipped and maintained with a catalytic converter [IV.1]. **Request records for the last 12 months.**
(See Attached) – Doc #1.
11. Please confirm that within 180 days after permit issuance, verification of NO_x, CO, and 1,3-Butadiene emission rates from a representative number of test cells in FG-Bld16TCe11s were tested, at owner's expense, in accordance with Department requirements and submitted to the AQD [SC V.1]. **Request relevant records.**
Results submitted July 21, 2010
12. Please demonstrate the fuel usage in FG-Bldg16TCe11s is performed on a daily basis in a satisfactory manner. [SC VI.1]. **Request record summary for the last 12 months.**
(See Attached) – Doc #2.
13. Please demonstrate the monthly and previous 12 month NO_x emission calculation records for FG-Bldg16TCe11s are kept in a satisfactory manner. [SC VI.2]. **Request record summary for the last 12 months.**
(See Attached) – Doc #1.
14. Please demonstrate the monthly and previous 12 month CO emission calculation records for FG-Bldg16TCe11s are kept in a satisfactory manner. [SC VI.3]. **Request records for the last 12 months.**
(See Attached) – Doc #1.
15. Please demonstrate the 8-hour CO emission rate has been calculated based upon daily records prorated to an 8-hour rate. [SC VI.4]. **Request records for the last 12 months.**
(See Attached) – Doc #2.
16. Please demonstrate the monthly and previous 12 month 1,3 Butadiene emission calculation records for FG-Bldg16TCe11s are kept in a satisfactory manner. [SC VI.5]. **Request records for the last 12 months.**
(See Attached) – Doc #1.
17. Please demonstrate daily fuel use records for FG-Bld16TCe11s are kept in a satisfactory manner. [SC VI.6]. **Request records for the last 12 months.**
(See Attached) – Doc #2.
18. Please demonstrate monthly fuel use records for FG-Bld16TCe11s are kept in a satisfactory manner. [SC VI.7]. **Request records for the last 12 months.**
(See Attached) – Doc #1.
19. How many employees work in this unit?

We have approximately 7 employees at Building 16.

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Building 15

20. Please demonstrate there has not been any modification to any Bldg15TCells system or process at the facility in **the last 12 months**.

No changes have occurred in Building 15 that would modify emissions for the building, verified in tour.

21. Please demonstrate the monthly and previous 12 month NO_x emission calculation records for FG-Bld15TCells are kept in a satisfactory manner [3.71 tpy SC I.1]. **Requests record summary for the last 12 months.**
(See Attached) – Doc #3.

22. Please demonstrate monthly and previous 12-month CO emission calculation records for FG-Bld15TCells are kept in a satisfactory manner [83.3 tpy based on 12-months rolling t-p SC I.2]. **Requests records for the last 12 months.**
(See Attached) – Doc #3.

23. Please demonstrate the 8-hour CO emission rate for FG-Bld15TCellshas been calculated based upon daily records prorated to an 8-hour rate [**952 lb/8 hour SC I.3**]. **Requests records for the last 12 months.**
(See Attached) – Doc #4.

24. Please demonstrate monthly and previous 12-month Lead emission calculation records for FG-Bld15TCells are kept in a satisfactory manner [0.132 tpy based on 12-months rolling t-p SC I.5]. **Requests records for the last 12 months.**
(See Attached) – Doc #3.

25. Please demonstrate monthly and previous 12-month 1,3-butadiene emission calculation records for FG-Bld15TCells are kept in a satisfactory manner [0.054 tpy based on 12-month rolling t-p SC I.4]. **Requests records for the last 12 months.**
(See Attached) – Doc #3.

26. Please demonstrate the monitoring of fuel usage for FG-Bld15TCells is performed on a daily basis in a satisfactory manner [1,200 gal/day for uncontrolled engines; SC II.1]. **Requests record summary for the last 12 months.**
(See Attached) – Doc #4.

27. Please demonstrate the monitoring of fuel usage for FG-Bld15TCells is performed on a daily basis in a satisfactory manner [3,815 gal/day for controlled engines; SC II.2]. **Requests record summary for the last 12 months.**
(See Attached) – Doc 4.

28. Please demonstrate the monitoring of fuel usage for FG-Bld15TCells is performed on a daily basis in a satisfactory manner [70,000 gal/yr for uncontrolled engines based on 12-months rolling t-p; SC II.3]. **Requests record summary for the last 12 months.**
(See Attached) – Doc #3.
29. Please demonstrate the monitoring of fuel usage for FG-Bld15TCells is performed on a daily basis in a satisfactory manner [166,000 gal/yr for controlled engines based on 12-months rolling t-p; SC II.4]. **Requests record summary for the last 12 months.**
(See Attached) – Doc #3.
30. Please demonstrate the monitoring of leaded fuel usage for FG-Bld15TCells is performed on a daily basis in a satisfactory manner [30,000 gal/yr based on 12-months rolling t-p; SC II.5]. **Requests record summary for the last 12 months.**
(See Attached) – Doc #3.
31. Please demonstrate the permittee did not use leaded gasoline in any of FG-Bld15TCells that are controlled by catalytic converters [SC III.1]. **Request statement of confirmation.**

Leaded fuel has not been delivered in the since October of 2005.

32. **Please demonstrate** at least once per ROP term, verification of NO_x, CO, and 1,3-Butadiene emission rates from a representative number of test cells in FG-Bld15TCells by testing, at owner's expense, in accordance with Department requirements, was performed and results communicated to the AQD [SC V.1].

Results submitted July 21, 2010

33. Please demonstrate permittee monitored, in a satisfactory manner, the fuel usage for controlled and uncontrolled engines in FG-Bld15TCells on a daily basis [SC VI.1]. **Request records for the past 12 months.**
(See Attached) – Doc #4.
34. Please demonstrate the permittee kept, in a satisfactory manner, monthly and previous 12-month NO_x emission calculation records for FG-Bld15TCells [SC VI.2]. **Request records for the past 12 months.**
(See Attached) – Doc #3.
35. Please demonstrate the permittee kept, in a satisfactory manner, monthly and previous 12-month CO emission calculation records for FG-Bld15TCells [SC VI.3]. **Request records for the past 12 months.**
(See Attached) – Doc #3.
36. **Please demonstrate** the 8-hour CO emission rate was calculated based upon daily records, prorated to an 8-hour rate. Should the prorated emission rate exceed 90 percent of the limit, the permittee did keep 8-hour records for a minimum of two months until the emission rate fell below 90 percent of the limit [SC VI.4]. **Request records for the past 12 months.**
(See Attached) – Doc #4.

37. Please demonstrate the permittee kept, in a satisfactory manner, monthly and previous 12-month lead emission calculation records for FG-Bld15TCells [SC VI.5]. **Request records for the past 12 months.**
(See Attached) – Doc #3.
38. Please demonstrate the permittee kept, in a satisfactory manner, monthly and previous 12-month 1,3-butadiene emission calculation records for FG-Bld15TCells [SC VI.6]. **Request records for the past 12 months.**
(See Attached) – Doc #3.
39. Please demonstrate the permittee kept, in a satisfactory manner, daily fuel use records for FG-Bld15TCells. The records should specify the fuel usage for engines equipped with catalytic converters and the fuel usage for uncontrolled engines [SC VI.7]. **Request records for the past 12 months.**
(See Attached) – Doc #4.
40. Please demonstrate the permittee kept, in a satisfactory manner, monthly fuel use records for FG-Bld15TCells. The records should specify the fuel usage for engines equipped with catalytic converters and the fuel usage for uncontrolled engines [SC VI.8]. **Request records for the past 12 months.**
(See Attached) – Doc #4.
41. Please demonstrate the permittee kept, in a satisfactory manner, monthly leaded fuel use records for FG-Bld15TCells [SC VI.9]. **Request records for the past 12 months.**
(See Attached) – Doc #4.
42. **Please demonstrate** the permittee kept, in a satisfactory manner, records of the maximum lead content in the leaded fuel for each delivery [SC VI.10]. **Request records for the past 12 months.**

Leaded fuel has not been delivered in the since October of 2005.

Date	All Cells	Cells A1 - E5	Cell F6/G7 and H8/I9	12 Month Rolling Total All Cells	12 Month Rolling Total Cells A1-E5	12 Month Rolling Total Cell F6-I9	Emissions (Based on 12 month rolling)		
							CO (tons/yr)	NOx (tons/yr)	1,3 But (tons/yr)
			Maximum	160,000 gal/yr	140,000 gal/yr	20,000 gal/yr	65.3 tons/yr	6 tons/yr	0.43 tons/yr
Dec-11	5641	5542	99	69720	65500	4220	24.44	2.53	0.00453
Jan-12	10481	10470	11	70636	66406	4230	24.72	2.57	0.00459
Feb-12	5994	5984	10	68770	64532	4238	24.18	2.50	0.00447
Mar-12	5953	5078	875	67317	62472	4845	24.29	2.46	0.00438
Apr-12	4495	4416	79	67682	62767	4915	24.46	2.47	0.00440
May-12	6016	6016	0	68731	64615	4116	24.06	2.50	0.00447
Jun-12	8917	6957	1960	72227	66151	6076	26.84	2.65	0.00469
Jul-12	7655	6336	1319	77473	70196	7277	29.47	2.86	0.00504
Aug-12	3135	3133	2	76220	70074	6146	28.09	2.80	0.00495
Sep-12	5324	5324	0	78028	72052	5976	28.47	2.86	0.00507
Oct-12	3430	2510	920	73568	68190	5378	26.62	2.69	0.00478
Nov-12	3407	3339	68	70448	65105	5343	25.66	2.58	0.00458

Doc # 1

2011

Date	B-16 (A1 E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/19 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>December</i>								
12/1/11	413	79		0	491	24	164	
			492		0	0	0	164
12/2/11	379	15		0	272	18	121	
			394		0	0	0	121
12/5/11	144	0		0	85	24	28	
			144		0	0	0	28
12/6/11	373	0		0	221	24	74	
			373		0	0	0	74
12/7/11	145	0		0	86	24	29	
			145		0	0	0	29
12/8/11	404	0		0	240	24	80	
			404		0	0	0	80
12/9/11	413	0		0	245	40	49	
			413		0	0	0	49
12/12/11	335	0		0	199	24	66	
			335		0	0	0	66
12/13/11	391	0		0	232	24	77	
			391		0	0	0	77
12/14/11	122	0		0	72	24	24	
			122		0	0	0	24
12/15/11	132	0		0	78	24	26	
			132		0	0	0	26
12/16/11	749	0		0	444	44	81	
			749		0	0	0	81
12/19/11	310	0		0	184	24	61	
			310		0	0	0	61
12/20/11	379	0		0	225	24	75	
			379		0	0	0	75
12/21/11	328	0		0	195	24	65	
			328		0	0	0	65
12/22/11	151	2		0	96	24	32	
			153		0	0	0	32
12/23/11	114	0		0	68	20	27	
			114		0	0	0	27
12/28/11	142	3		0	94	24	31	
			145		0	0	0	31
12/29/11	118	0		0	70	20	28	
			118		0	0	0	28
								B-16 Monthly Total
								5641
							(A1-E5) Monthly Total	F6/G7 Monthly Total
							5542	99

Doc # 2 (12 pages)

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
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Limits
 CO - 1,510 (lb/8 hrs)
 Fuel - 3,748 (gal/day)

January								
1/3/12	308	0		0	183	19	77	
			308		0	0	0	77
1/4/12	334	0		0	198	21	75	
			334		0	0	0	75
1/5/12	99	2		0	65	19	27	
			101		0	0	0	27
1/6/12	625	0		0	371	37	80	
			625		0	0	0	80
1/9/12	82	0		0	49	16	24	
			82		0	0	0	24
1/10/12	103	1		0	64	16	32	
			104		0	0	0	32
1/11/12	419	0		0	248	24	83	
			419		0	0	0	83
1/12/12	502	1		0	301	24	100	
			503		0	0	0	100
1/13/12	1492	1		0	888	72	99	
			1493		0	0	0	99
1/16/12	296	0		0	176	24	59	
			296		0	0	0	59
1/17/12	372	0		0	221	24	74	
			372		0	0	0	74
1/18/12	643	0		0	381	24	127	
			643		0	0	0	127
1/19/12	711	2		0	428	24	143	
			713		0	0	0	143
1/20/12	1238	1		0	737	72	82	
			1239		0	0	0	82
1/23/12	398	1		0	239	24	80	
			399		0	0	0	80
1/24/12	543	0		0	322	24	107	
			543		0	0	0	107
1/25/12	512	0		0	304	24	101	
			512		0	0	0	101
1/26/12	505	1		0	303	24	101	
			506		0	0	0	101
1/27/12	840	1		0	501	52	77	
			841		0	0	0	77
1/30/12	195	0		0	116	24	39	
			195		0	0	0	39
1/31/12	253	0		0	150	24	50	
			253		0	0	0	50

B-16 Monthly Total
10481

(A1-E5) Monthly Total	F6/G7 Monthly Total
10470	11

2012

Date	B-16 (A1 E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/19 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>February</i>								
2/1/12	278	0		0	165	24	55	
			278		0	0	0	55
2/2/12	309	3		0	193	24	64	
			312		0	0	0	64
2/3/12	889	0		0	527	24	176	
			889		0	0	0	176
2/6/12	406	0		0	241	24	80	
			406		0	0	0	80
2/7/12	413	0		0	245	24	82	
			413		0	0	0	82
2/8/12	383	1		0	230	24	77	
			384		0	0	0	77
2/9/12	210	1		0	128	24	43	
			211		0	0	0	43
2/10/12	276	1		0	167	42	32	
			277		0	0	0	32
2/13/12	153	1		0	94	18	42	
			154		0	0	0	42
2/14/12	151	0		0	90	20	36	
			151		0	0	0	36
2/15/12	145	0		0	86	20	34	
			145		0	0	0	34
2/16/12	154	0		0	91	19	38	
			154		0	0	0	38
2/17/12	379	1		0	228	54	34	
			380		0	0	0	34
2/20/12	151	1		0	93	18	41	
			152		0	0	0	41
2/21/12	131	0		0	78	18	35	
			131		0	0	0	35
2/22/12	129	0		0	76	16	38	
			129		0	0	0	38
2/23/12	148	0		0	88	16	44	
			148		0	0	0	44
2/24/12	267	0		0	158	32	40	
			267		0	0	0	40
2/27/12	380	1		0	228	24	76	
			381		0	0	0	76
2/28/12	335	0		0	199	24	66	
			335		0	0	0	66
2/29/12	297	0		0	176	24	59	
			297		0	0	0	59

B-16 Monthly Total
5994

(A1-E5) Monthly Total	F6/G7 Monthly Total
5984	10

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>March</i>								
3/1/12	332	0		0	197	24	66	
			332		0	0	0	66
3/2/12	149	0		0	88	40	18	
			149		0	0	0	18
3/5/12	115	0		0	68	24	23	
			115		0	0	0	23
3/6/12	344	0		0	204	24	68	
			344		0	0	0	68
3/7/12	383	1		0	230	24	77	
			384		0	0	0	77
3/8/12	276	0		0	164	24	55	
			276		0	0	0	55
3/9/12	199	0		0	118	46	21	
			199		0	0	0	21
3/12/12	248	0		0	147	20	59	
			248		0	0	0	59
3/13/12	291	1		0	176	20	70	
			292		0	0	0	70
3/14/12	399	1		0	240	24	80	
			400		0	0	0	80
3/15/12	171	1		0	105	20	42	
			172		0	0	0	42
3/16/12	144	0		0	85	35	20	
			144		0	0	0	20
3/19/12	97	0		0	58	20	23	
			97		0	0	0	23
3/20/12	51	0		0	30	20	12	
			51		0	0	0	12
3/21/12	114	0		0	68	24	23	
			114		0	0	0	23
3/22/12	184	0		0	109	20	44	
			184		0	0	0	44
3/23/12	517	116		0	669	38	141	
			633		0	0	0	141
3/26/12	101	136		0	484	24	161	
			237		0	0	0	161
3/27/12	304	129		0	583	24	194	
			433		0	0	0	194
3/28/12	390	141		0	671	24	224	
			531		0	0	0	224
3/29/12	118	114		0	426	20	170	
			232		0	0	0	170
3/30/12	151	235		0	823	40	165	
			386		0	0	0	165

B-16 Monthly Total
5953

(A1-E5) Monthly Total	F6/G7 Monthly Total
5078	875

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>April</i>								
4/2/12	110	47		0	212	19	89	
			157		0	0	0	89
4/3/12	99	0		0	59	20	23	
			99		0	0	0	23
4/4/12	310	0		0	184	24	61	
			310		0	0	0	61
4/5/12	282	0		0	167	24	56	
			282		0	0	0	56
4/6/12	0	0		0	0	0	0	
			0		0	0	0	0
4/9/12	62	31		0	133	20	53	
			93		0	0	0	53
4/10/12	259	0		0	154	24	51	
			259		0	0	0	51
4/11/12	263	0		0	156	24	52	
			263		0	0	0	52
4/12/12	323	0		0	192	24	64	
			323		0	0	0	64
4/13/12	217	0		0	129	40	26	
			217		0	0	0	26
4/16/12	249	0		0	148	20	59	
			249		0	0	0	59
4/17/12	303	0		0	180	20	72	
			303		0	0	0	72
4/18/12	59	1		0	38	20	15	
			60		0	0	0	15
4/19/12	281	0		0	167	24	56	
			281		0	0	0	56
4/20/12	559	0		0	331	42	63	
			559		0	0	0	63
4/23/12	84	0		0	50	20	20	
			84		0	0	0	20
4/24/12	82	0		0	49	20	19	
			82		0	0	0	19
4/25/12	85	0		0	50	20	20	
			85		0	0	0	20
4/26/12	98	0		0	58	20	23	
			98		0	0	0	23
4/27/12	443	0		0	263	38	55	
			443		0	0	0	55
4/30/12	248	0		0	147	20	59	
			248		0	0	0	59

B-16 Monthly Total
4495

(A1-E5) Monthly Total	F6/G7 Monthly Total
4416	79

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>May</i>								
5/1/12	374	0		0	222	24	74	
			374		0	0	0	74
5/2/12	299	0		0	177	24	59	
			299		0	0	0	59
5/3/12	299	0		0	177	24	59	
			299		0	0	0	59
5/4/12	870	0		0	516	72	57	
			870		0	0	0	57
5/7/12	334	0		0	198	24	66	
			334		0	0	0	66
5/8/12	321	0		0	190	24	63	
			321		0	0	0	63
5/9/12	253	0		0	150	24	50	
			253		0	0	0	50
5/10/12	152	0		0	90	24	30	
			152		0	0	0	30
5/11/12	300	0		0	178	42	34	
			300		0	0	0	34
5/14/12	173	0		0	103	24	34	
			173		0	0	0	34
5/15/12	160	0		0	95	24	32	
			160		0	0	0	32
5/16/12	164	0		0	97	24	32	
			164		0	0	0	32
5/17/12	346	0		0	205	24	68	
			346		0	0	0	68
5/18/12	482	0		0	286	40	57	
			482		0	0	0	57
5/21/12	338	0		0	200	24	67	
			338		0	0	0	67
5/22/12	401	0		0	238	24	79	
			401		0	0	0	79
5/23/12	135	0		0	80	24	27	
			135		0	0	0	27
5/24/12	147	0		0	87	24	29	
			147		0	0	0	29
5/25/12	132	0		0	78	20	31	
			132		0	0	0	31
5/28/12	0	0		0	0	0	0	
			0		0	0	0	0
5/29/12	134	0		0	79	24	26	
			134		0	0	0	26
5/30/12	91	0		0	54	20	22	
			91		0	0	0	22
5/31/12	111	0		0	66	14	38	
			111		0	0	0	38
								B-16 Monthly Total
								6016
							(A1-E5) Monthly Total	F6/G7 Monthly Total
							6016	0

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>June</i>								
6/1/12	700	0	700	0	415	40	83	
					0	0	0	83
6/4/12	201	0	201	0	119	24	40	
					0	0	0	40
6/5/12	350	0	350	0	208	24	69	
					0	0	0	69
6/6/12	439	0	439	0	260	24	87	
					0	0	0	87
6/7/12	294	0	294	0	174	24	58	
					0	0	0	58
6/8/12	354	0	354	0	210	40	42	
					0	0	0	42
6/11/12	158	0	158	0	94	24	31	
					0	0	0	31
6/12/12	183	96	279	0	408	24	136	
					0	0	0	136
6/13/12	205	144	349	0	571	24	190	
					0	0	0	190
6/14/12	177	132	309	0	517	24	172	
					0	0	0	172
6/15/12	378	384	762	0	1422	66	172	
					0	0	0	172
6/18/12	357	145	502	0	664	24	221	
					0	0	0	221
6/19/12	471	115	586	0	638	24	213	
					0	0	0	213
6/20/12	356	135	491	0	632	24	211	
					0	0	0	211
6/21/12	187	96	283	0	410	24	137	
					0	0	0	137
6/22/12	420	98	518	0	555	72	62	
					0	0	0	62
6/25/12	432	30	462	0	350	24	117	
					0	0	0	117
6/26/12	489	0	489	0	290	24	97	
					0	0	0	97
6/27/12	181	124	305	0	494	24	165	
					0	0	0	165
6/28/12	177	138	315	0	536	24	179	
					0	0	0	179
6/29/12	448	323	771	0	1273	0	65	
					0	0	0	65

B-16 Monthly Total
8917

(A1-E5) Monthly Total	F6/G7 Monthly Total
6957	1960

2012

Date	B-16 (A1 E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>July</i>								
7/2/12	172	128		0	501	16	251	
			300		0	0	0	251
7/3/12	118	115		0	429	20	172	
			233		0	0	0	172
7/4/12	0	0		0	0	0	0	
			0		0	0	0	0
7/5/12	153	133		0	506	24	169	
			286		0	0	0	169
7/6/12	314	340		0	1247	72	139	
			654		0	0	0	139
7/9/12	191	137		0	541	24	180	
			328		0	0	0	180
7/10/12	420	111		0	595	24	198	
			531		0	0	0	198
7/11/12	477	102		0	601	24	200	
			579		0	0	0	200
7/12/12	529	32		0	414	24	138	
			561		0	0	0	138
7/13/12	1342	89		0	1073	72	119	
			1431		0	0	0	119
7/16/12	514	31		0	402	24	134	
			545		0	0	0	134
7/17/12	462	31		0	371	24	124	
			493		0	0	0	124
7/18/12	422	32		0	350	24	117	
			454		0	0	0	117
7/19/12	100	13		0	100	24	33	
			113		0	0	0	33
7/20/12	183	25		0	187	46	32	
			208		0	0	0	32
7/23/12	105	0		0	62	24	21	
			105		0	0	0	21
7/24/12	102	0		0	60	24	20	
			102		0	0	0	20
7/25/12	136	0		0	81	21	31	
			136		0	0	0	31
7/26/12	130	0		0	77	15	41	
			130		0	0	0	41
7/27/12	237	0		0	141	44	26	
			237		0	0	0	26
7/30/12	105	0		0	62	20	25	
			105		0	0	0	25
7/31/12	124	0		0	74	20	29	
			124		0	0	0	29

B-16 Monthly Total
7655

(A1-E5) Monthly Total	F6/G7 Monthly Total
6336	1319

2012

Date	B-16 (A1 E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>August</i>								
8/1/12	468	0		0	278	24	93	
			468		0	0	0	93
8/2/12	171	0		0	101	20	41	
			171		0	0	0	41
8/3/12	550	0		0	326	40	65	
			550		0	0	0	65
8/6/12	54	0		0	32	20	13	
			54		0	0	0	13
8/7/12	128	0		0	76	22	28	
			128		0	0	0	28
8/8/12	134	0		0	79	24	26	
			134		0	0	0	26
8/9/12	99	0		0	59	20	23	
			99		0	0	0	23
8/10/12	130	1		0	80	20	32	
			131		0	0	0	32
8/13/12	69	1		0	44	20	18	
			70		0	0	0	18
8/14/12	48	0		0	28	20	11	
			48		0	0	0	11
8/15/12	60	0		0	36	20	14	
			60		0	0	0	14
8/16/12	114	0		0	68	20	27	
			114		0	0	0	27
8/17/12	110	0		0	65	30	17	
			110		0	0	0	17
8/20/12	73	0		0	43	18	19	
			73		0	0	0	19
8/21/12	55	0		0	33	20	13	
			55		0	0	0	13
8/22/12	64	0		0	38	18	17	
			64		0	0	0	17
8/23/12	86	0		0	51	20	20	
			86		0	0	0	20
8/24/12	173	0		0	103	40	21	
			173		0	0	0	21
8/27/12	116	0		0	69	22	25	
			116		0	0	0	25
8/28/12	121	0		0	72	22	26	
			121		0	0	0	26
8/29/12	124	0		0	74	22	27	
			124		0	0	0	27
8/30/12	122	0		0	72	22	26	
			122		0	0	0	26
8/31/12	64	0		0	38	16	19	
			64		0	0	0	19

B-16 Monthly Total
3135

(A1-E5) Monthly Total	F6/G7 Monthly Total
3133	2

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>September</i>								
9/4/12	336	0		0	199	24	66	
			336		0	0	0	66
9/5/12	427	0		0	253	24	84	
			427		0	0	0	84
9/6/12	406	0		0	241	24	80	
			406		0	0	0	80
9/7/12	789	0		0	468	42	89	
			789		0	0	0	89
9/10/12	370	0		0	219	24	73	
			370		0	0	0	73
9/11/12	502	0		0	298	24	99	
			502		0	0	0	99
9/12/12	484	0		0	287	24	96	
			484		0	0	0	96
9/13/12	486	0		0	288	24	96	
			486		0	0	0	96
9/14/12	422	0		0	250	40	50	
			422		0	0	0	50
9/17/12	57	0		0	34	20	14	
			57		0	0	0	14
9/18/12	118	0		0	70	20	28	
			118		0	0	0	28
9/19/12	114	0		0	68	20	27	
			114		0		0	27
9/20/12	108	0		0	64	20	26	
			108		0	0	0	26
9/21/12	222	0		0	132	20	53	
			222		0	0	0	53
9/24/12	100	0		0	59	20	24	
			100		0	0	0	24
9/25/12	107	0		0	63	24	21	
			107		0	0	0	21
9/26/12	99	0		0	59	20	23	
			99		0	0	0	23
9/27/12	81	0		0	48	20	19	
			81		0	0	0	19
9/28/12	96	0		0	57	38	12	
			96		0	0	0	12

**B-16
Monthly
Total**

5324

(A1-E5) Monthly Total	F6/G7 Monthly Total
5324	0

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total
<i>October</i>								
10/1/12	60	0	60	0	36	20	14	
					0	0	0	14
10/2/12	83	0	83	0	49	20	20	
					0	0	0	20
10/3/12	117	0	117	0	69	24	23	
					0	0	0	23
10/4/12	113	0	113	0	67	24	22	
					0	0	0	22
10/5/12	196	0	196	0	116	44	21	
					0	0	0	21
10/8/12	112	0	112	0	66	18	30	
					0	0	0	30
10/9/12	100	0	100	0	59	24	20	
					0	0	0	20
10/10/12	87	0	87	0	52	18	23	
					0	0	0	23
10/11/12	65	0	65	0	39	16	19	
					0	0	0	19
10/12/12	135	0	135	0	80	18	36	
					0	0	0	36
10/15/12	64	0	64	0	38	20	15	
					0	0	0	15
10/16/12	88	0	88	0	52	20	21	
					0	0	0	21
10/17/12	97	0	97	0	58	20	23	
					0	0	0	23
10/18/12	90	0	90	0	53	20	21	
					0	0	0	21
10/19/12	150	0	150	0	89	40	18	
					0	0	0	18
10/22/12	97	0	97	0	58	24	19	
					0	0	0	19
10/23/12	62	120	182	0	411	24	137	
					0	0	0	137
10/24/12	83	140	223	0	486	24	162	
					0	0	0	162
10/25/12	139	121	260	0	460	24	153	
					0	0	0	153
10/26/12	251	404	655	0	1409	72	157	
					0	0	0	157
10/29/12	97	73	170	0	285	24	95	
					0	0	0	95
10/30/12	111	31	142	0	163	24	54	
					0	0	0	54
10/31/12	113	31	144	0	164	24	55	
					0	0	0	55

B-16 Monthly Total
3430

(A1-E5) Monthly Total	F6/G7 Monthly Total
2510	920

2012

Date	B-16 (A1-E5) Total Usage (Gallons) Controlled	Cell F6/G7 & Cell H8/I9 Usage (Gallons) Uncontrolled	B-16 Total Usage (Gallons)	Fuel Drop Adjustment (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)	CO (lb/8hrs) Total	
<i>November</i>									
11/1/12	126	32	158	0	175	24	58	58	
11/2/12	204	29	233	0	211	53	32	32	
11/5/12	131	0	131	0	78	24	26	26	
11/6/12	119	0	119	0	71	20	28	28	
11/7/12	150	0	150	0	89	24	30	30	
11/8/12	107	0	107	0	63	24	21	21	
11/9/12	746	0	746	0	442	52	68	68	
11/12/12	74	0	74	0	44	24	15	15	
11/13/12	69	0	69	0	41	24	14	14	
11/14/12	78	2	80	0	52	24	17	17	
11/15/12	131	0	131	0	78	24	26	26	
11/16/12	197	1	198	0	120	40	24	24	
11/19/12	131	1	132	0	81	24	27	27	
11/20/12	131	2	133	0	84	24	28	28	
11/21/12	220	1	221	0	134	38	28	28	
11/26/12	115	0	115	0	68	20	27	27	
11/27/12	103	0	103	0	61	20	24	24	
11/28/12	104	0	104	0	62	20	25	25	
11/29/12	109	0	109	0	65	20	26	26	
11/30/12	294	0	294	0	174	40	35	35	
								B-16 Monthly Total	
								3407	
								(A1-E5) Monthly Total	F6/G7 Monthly Total
								3339	68

Date	Total Usage with Catalyst	CNG Fuel Used (CF)	CNG Fuel Used (Gallons)	LPG Fuel Used (Gallons)	Total Usage without Catalyst	Total Usage	Rolling 12 Month Fuel with Catalyst	Rolling 12 Month Fuel without Catalyst	Total Usage Rolling -All	CO (tons/yr)	NOx (tons/yr)	1,3 But (tons/yr)	Monthly Total Race Fuel	Rolling 12 Month Sum - Race Fuel	Lead (tons/yr)
						Maximum	166,000 gal/yr	70,000 gal/yr		83.3 tons/yr	3.71 tons/yr	0.054 tons/yr	30,000 gal/yr		0.132 tons/yr
Dec-11	396	0	0	100	1030	1,426	7,317	14,870	22,187	20.434	0.839	0.00144	0	0	0.000
Jan-12	232	0	0	240	1300	1,532	4,933	15,781	20,714	20.626	0.871	0.00135	0	0	0.000
Feb-12	1259	0	0	120	2170	3,429	4,776	17,238	22,014	22.301	0.947	0.00143	0	0	0.000
Mar-12	1407	0	0	0	1229	2,636	4,776	16,166	20,942	21.025	0.890	0.00136	0	0	0.000
Apr-12	102	50,921	402	50	972	1,074	4,870	12,716	17,586	16.955	0.708	0.00114	0	0	0.000
May-12	735	11,780	93	100	1119	1,854	5,497	12,542	18,039	16.983	0.703	0.00117	0	0	0.000
Jun-12	1535	9,500	75	0	1029	2,564	6,821	12,908	19,729	17.914	0.732	0.00128	0	0	0.000
Jul-12	604	0	0	0	1599	2,203	7,261	12,621	19,882	17.737	0.720	0.00129	0	0	0.000
Aug-12	1285	0	0	0	979	2,264	7,885	12,543	20,428	17.878	0.720	0.00133	0	0	0.000
Sep-12	368	0	0	0	816	1,184	8,131	13,090	21,221	18.621	0.751	0.00138	0	0	0.000
Oct-12	1127	0	0	0	879	2,006	9,172	13,821	22,993	19.880	0.797	0.00149	0	0	0.000
Nov-12	812	0	0	0	1447	2,259	9,862	14,569	24,431	21.028	0.841	0.00159	0	0	0.000

Doc # 3

2011

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage without Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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December

12/1/11	0	0	0	0	0	0	0	8	0
12/2/11	0	0	0	20	0	20	3	8	3
12/3/11	0	0	0	0	0	0	0	8	0
12/4/11	0	0	0	0	0	0	0	8	0
12/5/11	0	72	0	0	0	72	171	8	171
12/6/11	0	93	0	0	0	93	221	8	221
12/7/11	0	87	0	0	0	87	207	8	207
12/8/11	0	80	0	0	0	80	190	8	190
12/9/11	10	216	0	0	0	226	522	8	522
12/10/11	0	30	0	20	0	50	74	8	74
12/11/11	0	0	0	0	0	0	0	8	0
12/12/11	12	162	0	0	0	174	395	8	395
12/13/11	51	0	0	0	0	51	38	8	38
12/14/11	116	0	0	0	0	116	87	8	87
12/15/11	40	0	0	0	0	40	30	8	30
12/16/11	42	162	0	20	0	224	420	8	420
12/17/11	0	0	0	0	0	0	0	8	0
12/18/11	0	0	0	0	0	0	0	8	0
12/19/11	4	0	0	0	0	4	3	8	3
12/20/11	0	0	0	0	0	0	0	8	0
12/21/11	121	28	0	0	0	149	157	8	157
12/22/11	0	0	0	20	0	20	3	8	3
12/23/11	0	0	0	20	0	20	3	8	3
12/24/11	0	0	0	0	0	0	0	8	0
12/25/11	0	0	0	0	0	0	0	8	0
12/26/11	0	0	0	0	0	0	0	8	0
12/27/11	0	0	0	0	0	0	0	8	0
12/28/11	0	0	0	0	0	0	0	8	0
12/29/11	0	0	0	0	0	0	0	8	0
12/30/11	0	0	0	0	0	0	0	8	0
12/31/11	0	0	0	0	0	0	0	8	0

w/Cat W/o Cat
396 1030

Doc # 4 (12 pages)

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage without Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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<i>January</i>									
1/1/12	0	0	0	0	0	0	0	8	0
1/2/12	0	0	0	0	0	0	0	8	0
1/3/12	0	0	0	0	0	0	0	8	0
1/4/12	0	0	0	40	0	40	5	8	5
1/5/12	0	0	0	0	0	0	0	8	0
1/6/12	0	31	0	0	0	31	74	8	74
1/7/12	0	0	0	0	0	0	0	8	0
1/8/12	0	0	0	0	0	0	0	8	0
1/9/12	20	0	0	40	0	60	20	8	20
1/10/12	0	49	0	0	0	49	117	8	117
1/11/12	0	53	0	0	0	53	126	8	126
1/12/12	0	279	0	0	0	279	664	16	332
1/13/12	0	0	0	40	0	40	5	8	5
1/14/12	0	0	0	0	0	0	0	8	0
1/15/12	0	0	0	0	0	0	0	8	0
1/16/12	0	111	0	0	0	111	264	8	264
1/17/12	0	28	0	0	0	28	67	8	67
1/18/12	0	83	0	0	0	83	198	8	198
1/19/12	0	75	0	0	0	75	179	8	179
1/20/12	0	26	0	0	0	26	62	8	62
1/21/12	0	0	0	0	0	0	0	8	0
1/22/12	0	0	0	0	0	0	0	8	0
1/23/12	0	0	0	40	0	40	5	8	5
1/24/12	0	0	0	0	0	0	0	8	0
1/25/12	19	16	0	0	0	35	52	8	52
1/26/12	10	30	0	40	0	80	84	8	84
1/27/12	164	49	0	0	0	213	239	16	120
1/28/12	0	0	0	0	0	0	0	8	0
1/29/12	0	0	0	0	0	0	0	8	0
1/30/12	3	124	0	0	0	127	297	8	297
1/31/12	16	106	0	40	0	162	269	8	269

w/Cat W/o Cat
232 1300

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
<i>February</i>									
2/1/12	2	287	0	0	0	289	685	16	342
2/2/12	7	207	0	0	0	214	498	16	249
2/3/12	0	346	0	0	0	346	823	16	412
2/4/12	0	332	0	0	0	332	790	16	395
2/5/12	0	0	0	0	0	0	0	8	0
2/6/12	275	0	0	0	0	275	206	16	103
2/7/12	47	60	0	40	0	147	183	8	183
2/8/12	130	186	0	0	0	316	540	16	270
2/9/12	151	74	0	0	0	225	289	16	145
2/10/12	151	0	0	0	0	151	113	16	57
2/11/12	0	0	0	0	0	0	0	8	0
2/12/12	0	0	0	0	0	0	0	8	0
2/13/12	120	34	0	0	0	154	171	16	85
2/14/12	101	0	0	40	0	141	81	16	40
2/15/12	100	185	0	0	0	285	515	16	258
2/16/12	0	17	0	0	0	17	40	8	40
2/17/12	0	0	0	0	0	0	0	8	0
2/18/12	0	0	0	0	0	0	0	8	0
2/19/12	0	0	0	0	0	0	0	8	0
2/20/12	0	1	0	0	0	1	2	8	2
2/21/12	0	2	0	0	0	2	5	8	5
2/22/12	0	61	0	0	0	61	145	8	145
2/23/12	167	6	0	0	0	173	139	16	70
2/24/12	0	46	0	0	0	46	109	8	109
2/25/12	0	78	0	0	0	78	186	8	186
2/26/12	0	44	0	0	0	44	105	8	105
2/27/12	0	9	0	0	0	9	21	8	21
2/28/12	8	28	0	0	0	36	73	8	73
2/29/12	0	47	0	40	0	87	117	8	117

w/Cat W/o Cat
1259 2170

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage without Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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March

3/1/12	0	4	0	0	0	4	10	8	10
3/2/12	0	10	0	0	0	10	24	8	24
3/3/12	289	61	0	0	0	350	362	16	181
3/4/12	289	0	0	0	0	289	216	16	108
3/5/12	289	9	0	0	0	298	238	16	119
3/6/12	290	65	0	0	0	355	372	16	186
3/7/12	15	21	0	0	0	36	61	8	61
3/8/12	50	0	0	0	0	50	37	8	37
3/9/12	0	32	0	0	0	32	76	8	76
3/10/12	153	28	0	0	0	181	181	8	181
3/11/12	0	138	0	0	0	138	328	8	328
3/12/12	0	55	0	0	0	55	131	8	131
3/13/12	0	28	0	0	0	28	67	8	67
3/14/12	0	106	0	0	0	106	252	8	252
3/15/12	0	23	0	0	0	23	55	8	55
3/16/12	0	13	0	0	0	13	31	8	31
3/17/12	0	16	0	0	0	16	38	8	38
3/18/12	1	5	0	0	0	6	13	8	13
3/19/12	13	4	0	0	0	17	19	8	19
3/20/12	0	0	0	0	0	0	0	8	0
3/21/12	0	23	0	0	0	23	55	8	55
3/22/12	5	8	0	0	0	13	23	8	23
3/23/12	4	24	0	0	0	28	60	8	60
3/24/12	2	28	0	0	0	30	68	8	68
3/25/12	2	153	0	0	0	155	366	8	366
3/26/12	0	0	0	0	0	0	0	8	0
3/27/12	0	32	0	0	0	32	76	8	76
3/28/12	5	136	0	0	0	141	327	8	327
3/29/12	0	63	0	0	0	63	150	8	150
3/30/12	0	126	0	0	0	126	300	8	300
3/31/12	0	18	0	0	0	18	43	8	43

w/Cat 1407 W/o Cat 1229

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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April

4/1/12	0	58	0	0	0	58	138	8	138
4/2/12	0	18	0	0	0	18	43	8	43
4/3/12	0	22	0	0	44	22	55	8	55
4/4/12	0	7	0	0	22	7	18	8	18
4/5/12	0	7	0	0	64	7	20	8	20
4/6/12	0	0	0	0	0	0	0	8	0
4/7/12	0	0	0	0	0	0	0	8	0
4/8/12	0	0	0	0	0	0	0	8	0
4/9/12	0	19	0	0	0	19	45	8	45
4/10/12	0	40	0	25	59	65	101	8	101
4/11/12	0	26	0	25	26	51	66	8	66
4/12/12	0	41	0	0	11	41	98	8	98
4/13/12	30	101	0	0	10	131	263	8	263
4/14/12	2	5	0	0	0	7	13	8	13
4/15/12	7	0	0	0	0	7	5	8	5
4/16/12	0	0	0	0	9	0	0	8	0
4/17/12	0	2	0	0	17	2	6	8	6
4/18/12	0	3	0	0	21	3	8	8	8
4/19/12	8	10	0	0	31	18	31	8	31
4/20/12	14	2	0	0	44	16	17	8	17
4/21/12	0	0	0	0	0	0	0	8	0
4/22/12	0	0	0	0	0	0	0	8	0
4/23/12	4	11	0	0	44	15	31	8	31
4/24/12	9	93	0	0	0	102	228	8	228
4/25/12	2	3	0	0	0	5	9	8	9
4/26/12	14	31	0	0	0	45	84	8	84
4/27/12	9	3	0	0	0	12	14	8	14
4/28/12	0	0	0	0	0	0	0	8	0
4/29/12	0	16	0	0	0	16	38	8	38
4/30/12	3	2	0	0	0	5	7	8	7

w/Cat W/o Cat
102 972

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage without Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
0									
<i>May</i>									
5/1/12	0	44	0	0	0	44	105	8	105
5/2/12	0	12	0	0	0	12	29	8	29
5/3/12	7	38	0	0	0	45	96	8	96
5/4/12	13	4	0	0	0	17	19	8	19
5/5/12	0	0	0	0	0	0	0	8	0
5/6/12	0	0	0	0	0	0	0	8	0
5/7/12	0	0	0	0	0	0	0	8	0
5/8/12	2	48	0	0	0	50	116	16	58
5/9/12	7	371	0	0	0	378	888	16	444
5/10/12	20	208	0	0	0	228	510	16	255
5/11/12	65	3	0	0	0	68	56	8	56
5/12/12	0	0	0	0	0	0	0	8	0
5/13/12	0	0	0	0	0	0	0	8	0
5/14/12	18	0	0	0	0	18	13	16	7
5/15/12	29	53	0	0	0	82	148	16	74
5/16/12	39	4	0	0	0	43	39	16	19
5/17/12	67	0	0	0	0	67	50	16	25
5/18/12	23	5	0	0	0	28	29	12	19
5/19/12	23	0	0	0	0	23	17	12	11
5/20/12	23	0	0	0	0	23	17	24	6
5/21/12	36	6	0	0	22	42	42	24	14
5/22/12	39	10	0	0	26	49	54	24	18
5/23/12	41	27	0	0	23	68	96	24	32
5/24/12	44	3	0	0	22	47	41	24	14
5/25/12	58	22	0	25	0	105	99	24	33
5/26/12	58	0	0	0	0	58	43	24	14
5/27/12	0	0	0	0	0	0	0	8	0
5/28/12	0	0	0	0	0	0	0	8	0
5/29/12	41	27	0	25	0	93	98	24	33
5/30/12	42	24	0	25	0	91	92	24	31
5/31/12	40	17	0	25	0	82	74	24	25

w/Cat W/o Cat
735 1119

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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June

6/1/12	102	125	0	0	0	227	374	24	125
6/2/12	44	0	0	0	0	44	33	24	11
6/3/12	44	0	0	0	0	44	33	24	11
6/4/12	55	25	0	0	28	80	102	24	34
6/5/12	163	0	0	0	7	163	122	24	41
6/6/12	84	36	0	0	40	120	151	24	50
6/7/12	82	25	0	0	0	107	121	24	40
6/8/12	52	38	0	0	0	90	129	24	43
6/9/12	52	38	0	0	0	90	129	24	43
6/10/12	52	38	0	0	0	90	129	24	43
6/11/12	53	38	0	0	0	91	130	24	43
6/12/12	240	52	0	0	0	292	304	24	101
6/13/12	45	35	0	0	0	80	117	16	59
6/14/12	75	0	0	0	0	75	56	16	28
6/15/12	45	0	0	0	0	45	34	16	17
6/16/12	270	0	0	0	0	270	202	8	202
6/17/12	6	56	0	0	0	62	138	8	138
6/18/12	1	19	0	0	0	20	46	16	23
6/19/12	0	41	0	0	0	41	98	16	49
6/20/12	6	31	0	0	0	37	78	16	39
6/21/12	12	89	0	0	0	101	221	16	110
6/22/12	0	24	0	0	0	24	57	16	29
6/23/12	0	22	0	0	0	22	52	8	52
6/24/12	0	4	0	0	0	4	10	8	10
6/25/12	0	6	0	0	0	6	14	16	7
6/26/12	0	36	0	0	0	36	86	16	43
6/27/12	0	38	0	0	0	38	90	16	45
6/28/12	31	70	0	0	0	101	190	16	95
6/29/12	21	25	0	0	0	46	75	16	38
6/30/12	0	43	0	0	0	43	102	8	102

w/Cat W/o Cat
1535 1029

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
							0	0	#DIV/0!
<i>July</i>									
7/1/12	0	0	0	0	0	0	0	8	0
7/2/12	4	117	0	0	0	121	281	16	141
7/3/12	0	93	0	0	0	93	221	16	111
7/4/12	0	0	0	0	0	0	0	16	0
7/5/12	0	347	0	0	0	347	826	16	413
7/6/12	141	101	0	0	0	242	346	16	173
7/7/12	0	46	0	0	0	46	109	8	109
7/8/12	0	45	0	0	0	45	107	8	107
7/9/12	135	92	0	0	0	227	320	16	160
7/10/12	5	75	0	0	0	80	182	16	91
7/11/12	44	92	0	0	0	136	252	16	126
7/12/12	62	88	0	0	0	150	256	16	128
7/13/12	10	37	0	0	0	47	96	16	48
7/14/12	0	0	0	0	0	0	0	16	0
7/15/12	0	0	0	0	0	0	0	8	0
7/16/12	0	55	0	0	0	55	131	8	131
7/17/12	30	173	0	0	0	203	434	16	217
7/18/12	28	8	0	0	0	36	40	16	20
7/19/12	85	38	0	0	0	123	154	16	77
7/20/12	20	38	0	0	0	58	105	16	53
7/21/12	0	0	0	0	0	0	0	8	0
7/22/12	0	0	0	0	0	0	0	8	0
7/23/12	0	0	0	0	0	0	0	16	0
7/24/12	0	10	0	0	0	10	24	16	12
7/25/12	5	0	0	0	0	5	4	16	2
7/26/12	0	8	0	0	0	8	19	16	10
7/27/12	35	44	0	0	0	79	131	16	65
7/28/12	0	0	0	0	0	0	0	8	0
7/29/12	0	0	0	0	0	0	0	8	0
7/30/12	0	52	0	0	0	52	124	16	62
7/31/12	0	40	0	0	0	40	95	16	48

w/Cat W/o Cat
604 1599

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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August

8/1/12	0	29	0	0	0	29	69	16	35
8/2/12	12	38	0	0	0	50	99	16	50
8/3/12	32	80	0	0	0	112	214	24	71
8/4/12	32	0	0	0	0	32	24	24	8
8/5/12	33	0	0	0	0	33	25	24	8
8/6/12	2	52	0	0	0	54	125	8	125
8/7/12	0	27	0	0	0	27	64	8	64
8/8/12	45	52	0	0	0	97	157	24	52
8/9/12	43	33	0	0	0	76	111	24	37
8/10/12	47	36	0	0	0	83	121	24	40
8/11/12	47	0	0	0	0	47	35	24	12
8/12/12	47	3	0	0	0	50	42	24	14
8/13/12	43	20	0	0	0	63	80	24	27
8/14/12	76	23	0	0	0	99	112	24	37
8/15/12	43	42	0	0	0	85	132	24	44
8/16/12	49	37	0	0	0	86	125	24	42
8/17/12	43	103	0	0	0	146	277	24	92
8/18/12	43	20	0	0	0	63	80	24	27
8/19/12	43	0	0	0	0	43	32	24	11
8/20/12	45	92	0	0	0	137	253	24	84
8/21/12	48	99	0	0	0	147	272	24	91
8/22/12	70	32	0	0	0	102	129	24	43
8/23/12	54	0	0	0	0	54	40	24	13
8/24/12	47	2	0	0	0	49	40	24	13
8/25/12	47	0	0	0	0	47	35	24	12
8/26/12	47	0	0	0	0	47	35	24	12
8/27/12	46	80	0	0	0	126	225	24	75
8/28/12	44	0	0	0	0	44	33	24	11
8/29/12	66	12	0	0	0	78	78	24	26
8/30/12	44	22	0	0	0	66	85	24	28
8/31/12	47	45	0	0	0	92	142	24	47

w/Cat W/o Cat
1285 979

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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September

9/1/12	48	2	0	0	0	50	41	24	14
9/2/12	48	0	0	0	0	48	36	24	12
9/3/12	48	0	0	0	0	48	36	24	12
9/4/12	48	7	0	0	0	55	53	24	18
9/5/12	48	41	0	0	0	89	134	24	45
9/6/12	38	5	0	0	0	43	40	24	13
9/7/12	30	13	0	0	0	43	53	24	18
9/8/12	30	0	0	0	0	30	22	24	7
9/9/12	30	0	0	0	0	30	22	24	7
9/10/12	0	31	0	0	0	31	74	8	74
9/11/12	0	52	0	0	0	52	124	8	124
9/12/12	0	51	0	0	0	51	121	8	121
9/13/12	0	15	0	0	0	15	36	8	36
9/14/12	0	34	0	0	0	34	81	8	81
9/15/12	0	0	0	0	0	0	0	8	0
9/16/12	0	0	0	0	0	0	0	8	0
9/17/12	0	76	0	0	0	76	181	8	181
9/18/12	0	39	0	0	0	39	93	8	93
9/19/12	0	88	0	0	0	88	209	8	209
9/20/12	0	79	0	0	0	79	188	8	188
9/21/12	0	51	0	0	0	51	121	8	121
9/22/12	0	0	0	0	0	0	0	8	0
9/23/12	0	0	0	0	0	0	0	8	0
9/24/12	0	24	0	0	0	24	57	8	57
9/25/12	0	47	0	0	0	47	112	8	112
9/26/12	0	123	0	0	0	123	293	8	293
9/27/12	0	34	0	0	0	34	81	8	81
9/28/12	0	4	0	0	0	4	10	8	10
9/29/12	0	0	0	0	0	0	0	8	0
9/30/12	0	0	0	0	0	0	0	8	0

w/Cat W/o Cat
368 816

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage without Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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October

10/1/12	69	13	0	0	0	82	83	16	41
10/2/12	2	10	0	0	0	12	25	16	13
10/3/12	3	19	0	0	0	22	47	16	24
10/4/12	12	115	0	0	0	127	283	16	141
10/5/12	23	33	0	0	0	56	96	16	48
10/6/12	0	0	0	0	0	0	0	8	0
10/7/12	0	0	0	0	0	0	0	8	0
10/8/12	12	0	0	0	0	12	9	16	4
10/9/12	11	0	0	0	0	11	8	16	4
10/10/12	11	6	0	0	0	17	23	16	11
10/11/12	0	8	0	0	0	8	19	16	10
10/12/12	98	0	0	0	0	98	73	16	37
10/13/12	0	0	0	0	0	0	0	8	0
10/14/12	0	0	0	0	0	0	0	8	0
10/15/12	0	0	0	0	0	0	0	16	0
10/16/12	0	0	0	0	0	0	0	16	0
10/17/12	72	60	0	0	0	132	197	16	98
10/18/12	0	46	0	0	0	46	109	16	55
10/19/12	79	87	0	0	0	166	266	16	133
10/20/12	0	87	0	0	0	87	207	8	207
10/21/12	0	0	0	0	0	0	0	8	0
10/22/12	88	26	0	0	0	114	128	16	64
10/23/12	93	63	0	0	0	156	220	16	110
10/24/12	100	4	0	0	0	104	84	16	42
10/25/12	110	0	0	0	0	110	82	16	41
10/26/12	112	0	0	0	0	112	84	16	42
10/27/12	0	0	0	0	0	0	0	8	0
10/28/12	0	0	0	0	0	0	0	8	0
10/29/12	120	217	0	0	0	337	606	16	303
10/30/12	112	15	0	0	0	127	120	16	60
10/31/12	0	70	0	0	0	70	167	16	83

w/Cat W/o Cat
1127 879

2012

Date	B-15 Gasoline Usage with Catalyst (Gallons)	B-15 Gasoline Usage with/out Catalyst (Gallons)	Leaded Fuel Usage (Gallons)	LPG Fuel Used (Gallons)	CNG Fuel Used (Gallons)	B-15 Total Usage (Gallons)	CO (lb/day)	Hours Worked	CO (lb/8hrs)
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November

11/1/12	112	67	0	0	0	179	243	16	122
11/2/12	0	79	0	0	0	79	188	16	94
11/3/12	0	79	0	0	0	79	188	8	188
11/4/12	120	0	0	0	0	120	90	8	90
11/5/12	130	69	0	0	0	199	262	16	131
11/6/12	135	10	0	0	0	145	125	16	62
11/7/12	140	87	0	0	0	227	312	16	156
11/8/12	0	45	0	0	0	45	107	16	54
11/9/12	0	66	0	0	0	66	157	16	79
11/10/12	0	66	0	0	0	66	157	16	79
11/11/12	0	0	0	0	0	0	0	8	0
11/12/12	0	43	0	0	0	43	102	16	51
11/13/12	0	75	0	0	0	75	179	16	89
11/14/12	0	75	0	0	0	75	179	16	89
11/15/12	175	82	0	0	0	257	326	16	163
11/16/12	0	62	0	0	0	62	148	16	74
11/17/12	0	60	0	0	0	60	143	16	71
11/18/12	0	0	0	0	0	0	0	8	0
11/19/12	0	46	0	0	0	46	109	16	55
11/20/12	0	81	0	0	0	81	193	16	96
11/21/12	0	33	0	0	0	33	79	16	39
11/22/12	0	0	0	0	0	0	0	8	0
11/23/12	0	0	0	0	0	0	0	8	0
11/24/12	0	0	0	0	0	0	0	8	0
11/25/12	0	0	0	0	0	0	0	8	0
11/26/12	0	91	0	0	0	91	217	16	108
11/27/12	0	108	0	0	0	108	257	16	129
11/28/12	0	67	0	0	0	67	159	16	80
11/29/12	0	56	0	0	0	56	133	16	67
11/30/12	0	0	0	0	0	0	0	8	0

w/Cat 812 W/o Cat 1447