

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
AIR QUALITY DIVISION**

NOVEMBER 13, 2020

**PERMIT TO INSTALL**  
147-07D

**ISSUED TO**  
ZF AXLE DRIVES MARYSVILLE

**LOCATED AT**  
2900 BUSHA HIGHWAY  
MARYSVILLE, MICHIGAN 48040

**IN THE COUNTY OF**  
ST. CLAIR

**STATE REGISTRATION NUMBER**  
N7795

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: <b>November 2, 2020</b>	
DATE PERMIT TO INSTALL APPROVED: <b>November 13, 2020</b>	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

## PERMIT TO INSTALL

### Table of Contents

COMMON ACRONYMS .....	2
POLLUTANT / MEASUREMENT ABBREVIATIONS.....	3
GENERAL CONDITIONS .....	4
EMISSION UNIT SPECIAL CONDITIONS.....	6
EMISSION UNIT SUMMARY TABLE .....	6
EU-AMMONIA.....	7
FLEXIBLE GROUP SPECIAL CONDITIONS.....	9
FLEXIBLE GROUP SUMMARY TABLE .....	9
FGHEATTREAT.....	10
FGFACILITY CONDITIONS.....	13

### COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

### POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H <sub>2</sub> S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO <sub>x</sub>	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO <sub>2</sub>	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

## GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

## EMISSION UNIT SPECIAL CONDITIONS

### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EU-AMMONIA	A single anhydrous ammonia storage tank used to supply ammonia to a metal heat treatment line. The nominal tank storage capacity is 1,000 gallons.	NA
EU-NORTH-HT	One metal heat treatment line consisting of two (2) carburizing furnaces, one (1) oil quench (free), two (2) oil quench presses, parts washers, two (2) endothermic generators, and one (1) tempering furnace. The heat treatment line has ammonia and natural gas surface treatment of metal parts.	FG-HEATTREAT
EU-SOUTH-HT	One metal heat treatment line consisting of two (2) carburizing furnaces, two (2) oil quenches (free), parts washers, one (1) endothermic generator, and one (1) tempering furnace. The heat treatment line has ammonia and natural gas surface treatment of metal parts.	FG-HEATTREAT
EU-EAST-HT	One metal heat treatment line consisting of one (1) carburizing furnace, one (1) oil quench (free), parts washers, one (1) endothermic generator, and one (1) tempering furnace. The heat treatment line has ammonia and natural gas surface treatment of metal parts.	FG-HEATTREAT

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

<b>EU-AMMONIA EMISSION UNIT CONDITIONS</b>
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**DESCRIPTION**

A single anhydrous ammonia storage tank used to supply ammonia to a metal heat treatment line. The nominal tank storage capacity is 1,000 gallons.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. Except where specific requirements of these special conditions are applicable and more stringent, EU-AMMONIA shall comply with the Department of Labor and Economic Growth General Industry Safety Standards, Part 78. Storage and Handling of Anhydrous Ammonia – (1910.111) hereinafter Rule 7801. A copy of this document, which may be obtained by contacting the Michigan Occupational Safety and Health Administration, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI 48909-8143, shall be maintained for inspection at the facility.<sup>1</sup> **(R 336.1901)**
2. The permittee shall not operate EU-AMMONIA unless an emergency response plan, to be followed in the event of an emergency, has been approved by the local fire department or county emergency response agency and is implemented and maintained. Prior to each spring season, the permittee shall review this plan with the local fire department or emergency response agency and make any necessary updates.<sup>1</sup> **(R 336.1901)**
3. The permittee shall not operate EU-AMMONIA unless all transfer operations including transport deliveries are performed by a reliable person properly trained and made responsible for proper compliance with all applicable procedures.<sup>1</sup> **(R 336.1901)**
4. Vapor return lines shall be employed whenever necessary to ensure an accidental release from pressure relief valves will not occur during ammonia transfer operations.<sup>1</sup> **(R 336.1901)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU-AMMONIA unless a remotely operated internal or external positive shut-off valve is installed to allow access for emergency shut-off of all flow from stationary storage containers.<sup>1</sup> **(R 336.1225, R 336.1901)**
2. Any vapor or liquid line equipped with a mechanical connector, exclusive of couplings, requiring venting after ammonia transfer to the ammonia storage tank shall be purged into the storage tank or returned to the supplying vessel, or vented through a control device to minimize the release of ammonia emissions to the atmosphere.<sup>1</sup> **(R 336.1225, R 336.1901)**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall keep, in a satisfactory manner, records of the date of annual review and approval of the emergency response plan with the local fire department. All records shall be kept on file and made available to the Department upon request.<sup>1</sup> (R 336.1901)

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## FLEXIBLE GROUP SPECIAL CONDITIONS

### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FG-HEATTREAT	Three heat treatment lines with carburizing furnaces, oil quenching, parts washers, and tempering furnaces with surface treatment of metal parts using ammonia and natural gas (endo gas).	EU-NORTH-HT, EU-SOUTH-HT, EU-EAST-HT

**FGHEATTREAT  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three heat treatment lines with carburizing furnaces, oil quenching, parts washers, and tempering furnaces with surface treatment of metal parts using ammonia and natural gas (endo gas).

**Emission Unit:** EU-NORTH-HT, EU-SOUTH-HT, EU-EAST-HT

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	1.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGHEATTREAT	SC VI.3	R 336.1702(a)

**II. MATERIAL LIMIT(S)**

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Ammonia	20.2 tpy	12-month rolling time period as determined at the end of each calendar month	FGHEATTREAT	SC VI.3	R 336.1224, R 336.1225

2. The permittee shall not use more than 475 gallons of quench oil per 12-month rolling time period as determined at the end of each calendar month to replenish lost quench oil in FG-HEATTREAT. **(R 336.1702, 40 CFR 52.21(c) and (d))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the end of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702, 40 CFR 52.21(c) and (d))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each quench oil, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer’s formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**
3. The permittee shall calculate the VOC emission rate from FG-HEATTREAT for each calendar month, using a material balance for quench oil usage (Appendix A):
  - a. Quench oil purchased or usage rate to replenish lost quench oil (column A)
  - b. Amount of spent oil sent off-site for recycling (column B).
  - c. Amount of spent oil or sludge sent off-site for disposal (column C).
  - d. Amount of oil spilled (column D).
  - e. Emission calculations determining the monthly emission rates in tons per calendar month.
  - f. Emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records at the facility in the format specified in Appendix A, or an alternate format that has been approved by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702)**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period, as determined at the end of each calendar month, ammonia usage records for FG-HEATTREAT. The permittee shall keep all records on file and make them available to the Department upon request.<sup>1</sup> **(R 336.1224, R 336.1225)**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-1 (Quench #1)	12	49	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-2 (Quench #2)	12	49	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-3 (Carburizing Furnace #3, quench section)	26	52	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-4 (Carburizing Furnace #3, heating sections)	44	49	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-5 (Tempering Furnace #2)	22	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
6. SV-6 (Tempering Furnace #2)	22	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
7. SV-7 (Tempering Furnace #2)	38	49.3	R 336.1225, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
8. SV-8 (Carburizing Furnace #2, quench section)	26	52	R 336.1225, 40 CFR 52.21(c) & (d)
9. SV-9 (Carburizing Furnace #2, heating sections)	44	49	R 336.1225, 40 CFR 52.21(c) & (d)
10. SV-10 (Tempering Furnace #1)	22	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
11. SV-11 (Tempering Furnace #1)	22	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
12. SV-12 (Tempering Furnace #1)	38	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
13. SV-13 (Endothermic generators #1 & #2)	32	49	R 336.1225, 40 CFR 52.21(c) & (d)
14. SV-14 (Carburizing Furnace #1, quench section)	26	52	R 336.1225, 40 CFR 52.21(c) & (d)
15. SV-15 (Carburizing Furnace #1, heating sections)	44	49	R 336.1225, 40 CFR 52.21(c) & (d)
16. SV-21 (Endothermic generators #3 & #4)	32	49	R 336.1225, 40 CFR 52.21(c) & (d)
17. SV-22 (Carburizing Furnace #4, quench section)	26	52	R 336.1225, 40 CFR 52.21(c) & (d)
18. SV-23 (Carburizing Furnace #4, heating sections)	44	49	R 336.1225, 40 CFR 52.21(c) & (d)
19. SV-30 (Tempering Furnace #3)	22	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
20. SV-31 (Tempering Furnace #3)	22	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
21. SV-32 (Tempering Furnace #3)	38	49.3	R 336.1225, 40 CFR 52.21(c) & (d)
22. SV-34 (Carburizing Furnace #5, quench section)	26	52	R 336.1225, 40 CFR 52.21(c) & (d)
23. SV-35 (Carburizing Furnace #5, heating sections)	44	49	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## FGFACILITY CONDITIONS

### DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

### POLLUTION CONTROL EQUIPMENT

NA

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NOx	Less than 90.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)

#### II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural gas	908 MMcf	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)(a), R 336.1225

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the end of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3))
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the natural gas usage for FGFACILITY on a monthly basis. (R 336.1205(1)(a), R 336.1225)

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period natural gas usage records for FGFACILITY. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225)**
4. The permittee shall keep the following information on a monthly basis for FGFACILITY:
  - a. The amount of fuel (natural gas, No.2 fuel oil, etc.) used.
  - b. The following emission factors or emission factors acceptable to the AQD District Supervisor may be used for calculating NOx emissions:
    - NOx emission factor for boilers = 100 lb/MMcf of natural gas
    - NOx emission factor for heat treat carburizing furnaces = 445 lb/MMcf of natural gas
    - NOx emission factor for space heaters, tempering furnaces, and misc. combustion units = 100 lb/MMcf of natural gas
    - NOx emission factor for No.2 fuel oil fired engines = 4.4 lb/MMBtu
  - c. NOx emission calculations determining the monthly emission rate in tons per calendar month.
  - d. NOx emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**APPENDIX A**

**MONTHLY QUENCH OIL BALANCE  
 AND VOCs EMISSION ESTIMATE**

ZF Axle Drives Marysville, LLC  
 Permit No. 147-07D

<u>Month</u>	<u>A <sup>(1)</sup> Oil Addition</u>		<u>B <sup>(2)</sup> Reclaimed</u>		<u>C <sup>(3)</sup> Disposed</u>		<u>D <sup>(4)</sup> Spill/Clean-Up</u>		<u>E <sup>(5)</sup> VOC Emitted</u>	
	Gal.	Lbs.	Gal.	Lbs.	Gal.	Lbs.	Gal.	Lbs.	Gal.	Lbs.
<b>VOC Emitted</b> per calendar month (tons), <b>F = E/2000</b>									<b>F:</b>	
<b>VOC Emitted</b> per 12-month rolling time period (tons), <b>G = F + TOTAL OF 11 PREVIOUS MONTHS</b>									<b>G:</b>	

(1) New oil added/used to replenish lost quench oil.

(2) Spent oil transported to off-site reclamation.

(3) Oil in sludge generated from tank cleaning; sent to off-site disposal facility.

(4) Oil lost to spill or used for clean-up.

(5) Balance of oil lost in air emissions:  $E = A - B - C - D$ .

Note: A, B, C, and D are the amounts or volumes of liquid oil only and should not include any solid content or residues. "Lbs." in A, B, C, D, and E are determined as follows:  $Lbs. = Usage (gal.) \times Density (lbs/gal)$