MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

June 28, 2018

PERMIT TO INSTALL
7-00D

ISSUED TO
Elmer's Crane and Dozer, Inc.

LOCATED AT
3600 Rennie School Road
Traverse City, Michigan

IN THE COUNTY OF
Grand Traverse

STATE REGISTRATION NUMBER
B4167

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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: **January 2, 2018**	
DATE PERMIT TO INSTALL APPROVED: **June 28, 2018**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

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

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 Environmental Quality, 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 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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(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 conditions 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 R 336.1301, 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 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

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 (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU002	One Hot Mix Asphalt (HMA) facility, consisting of the 500 tons per hour aggregate conveyors and 500 tons per hour counterflow drum mixer with 120,000 actual cubic feet per minute baghouse.		FGFACILITY
EUYARD	Fugitive dust sources associated with the HMA facility, consisting of all plant roadways, the plant yard, all material storage piles, and all material handling operations except cold feed aggregate bins.		FGFACILITY
EUACTANKS	Six liquid asphalt cement storage tanks, three at 50,000 gallons capacity and two at 30,000 gallons capacity and one 40,000 gallon tank.		FGFACILITY
EUSILOS	Nine asphalt paving materials product storage silos, minimum of 200 tons capacity each.		FGFACILITY
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 336.1290.			

The following conditions apply to: EU002

DESCRIPTION: One Hot Mix Asphalt (HMA) facility, consisting of the 500 tons per hour aggregate conveyors and 500 tons per hour counterflow drum mixer

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT: Fabric Filter Collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.04 gr/dscf	Hourly	EU002	SC V.2, SC VI.4, SC VI.5	40 CFR 60, Subparts A & I
2. PM	0.03 lb per ton[b]	Hourly	EU002	SC V.2, SC VI.5, SC VI.8, SC VI.10	R 336.1205(1)(a), R 336.1205(3)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
3. PM	17.9 tpy[a]	12-month rolling time period as determined at the end of each calendar month	EU002	SC VI.5, SC VI.8, SC VI.10	R 336.1205(1)(a), R 336.1205(3)
4. CO	0.201 lb per ton[b]	Hourly	EU002	SC V.2, SC VI.2, SC VI.9, SC VI.10	R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702
5. CO	89.9 tpy[a]	12-month rolling time period as determined at the end of each calendar month	EU002	SC VI.8, SC VI.10	R 336.1205(1)(a), R 336.1205(3)
6. SO_2	0.16 lb per ton[b]	Hourly	EU002	SC V.2, SC VI.6, SC VI.10	R 336.1205(1)(a), R 336.1205(3)
7. SO_2	71.6 tpy[a]	12-month rolling time period as determined at the end of each calendar month	EU002	SC VI.8, SC VI.10	R 336.1205(1)(a), R 336.1205(3)
8. NO_x	0.12 lb per ton[b]	Hourly	EU002	SC V.2, SC VI.8	R 336.1205(1)(a), R 336.1205(3)
9. NO_x	53.7 tpy[a]	12-month rolling time period as determined at the end of each calendar month	EU002	SC VI.8, SC VI.10	R 336.1205(1)(a), R 336.1205(3)
10. Lead	2.02×10^{-6} lb per ton[b,1]	Hourly	EU002	SC V.2, SC VI.10	R 336.1225
11. Benzene	0.001 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
12. Toluene	0.006 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
13. Ethylbenzene	0.001 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
14. Xylene	0.001 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
15. Naphthalene	0.001 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
16. Formaldehyde	0.01 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
17. Acrolein	0.001 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
18. Arsenic	1.0×10^{-6} lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
19. Nickel	1.0×10^{-4} lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
20. H_2SO_4	0.0032 lb per ton[b,1]	Hourly	EU002	SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225
21. Manganese	5.0×10^{-5} lb per ton[b,1]	Hourly		SC V.1, SC VI.2, SC VI.8, SC VI.10	R 336.1224, R 336.1225

[a] Annual limits based on 325 tons HMA paving material production.
[b] Pound pollutant per ton of HMA paving material produced.

II. MATERIAL LIMITS

1. The permittee shall not burn any fuel other than natural gas, fuel oil, and recycled used oil in EU002. **(R 336.1224, R 336.1225, R 336.1702)**

2. The sulfur content of the fuel oil used in EU002 shall not exceed 1.0 percent by weight. **(R 336.1224, R 336.1225, R 336.1702)**

3. The permittee shall not use any asbestos tailings or waste materials containing asbestos in EU002 pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(R 336.1225, 40 CFR Part 61 Subparts A & M)**

4. The permittee shall limit the asphalt mixture process in EU002 to a maximum of 50 percent RAP material based on a monthly average. **(R 336.1224, R 336.1225, R 336.1702)**

5. The permittee shall not process more than 895,000 tons of HMA paving materials in EU002 per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a), R 336.1205(3))**

6. The permittee shall not process more than 500 tons of HMA paving materials in EU002 per hour based on a daily average as determined at the end of each production day. **(R 336.1224, R 336.1225, R 336.1702)**

7. The permittee shall not burn in EU002 any hazardous waste (as defined in state or federal law), blended fuel oil or specification recycled used oil (RUO) containing any contaminant that exceeds the following concentrations or for which the flash point, or ash content vary from the standards specified in the following table. **(R 336.1201(3), 336.1225)**

Contaminant	Limit	Units
Arsenic	5.0	ppmw
Cadmium	2.0	ppmw
Chromium	10.0	ppmw
Lead	100.0	ppmw
PCBs	1.0	ppmw
Total Halogens	1,000.0	ppmw
Sulfur	1.0	Weight %
Minimum Flash Point	100.0	°F
Maximum Ash Content	1.0	Weight %

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU002 unless the Fugitive Dust Control Plan for EUYARD specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, Act 451, Section 324.5524)**

2. The permittee shall not operate EU002 unless the Preventative Maintenance Program specified in Appendix B has been implemented and is maintained. **(R 336.1910, R 336.1911)**

3. The permittee shall not operate EU002 unless the Emission Abatement Plan for Startup, Shutdown and Malfunctions specified in Appendix C has been implemented and is maintained. **(R 336.1911, R 336.1912)**

4. The permittee shall not operate EUHMAPLANT unless the Compliance Monitoring Plan (CMP) for RUO specified in Appendix D, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. **(R 336.1225, R 336.1371, R 336.1372, R 336.1910, R 336.1911, Act 451, Section 324.5521, 40 CFR 279.55)**

5. The permittee shall maintain the efficiency of the EU002 drum mix burners, to control CO emissions, by fine tuning the burners for proper burner operation and performance. This shall be done at the start of each paving season or upon a malfunction of EU002 as shown by the CO emission monitoring data. **(R 336.1205)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU002 unless the fabric filter dust collector is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the fabric filter dust collector requires a pressure drop range between 2 and 10 inches of water column. The minimum pressure drop shall not be less than 2 inches, water gauge, except when a large number of filter bags have been replaced or other reason acceptable to the AQD. **(R 336.1910)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the virgin aggregate feed rate and the reclaimed asphalt pavement (RAP) feed rate to the EU002 on a continuous basis. **(R 336.1224, R 336.1225, R 336.1702)**

V. TESTING/SAMPLING

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

1. The permittee may be required for continued operation to verify Toxic Air Contaminants (TACs) emission rates from EU002 by testing at the owner's expense, in accordance with the Department requirements. TACs: acrolein, arsenic, benzene, ethylbenzene, formaldehyde, lead, manganese, naphthalene, nickel, sulfuric acid mist, toluene, xylene. Testing shall be performed using an approved EPA Method listed in Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
VOC	40 CFR Part 60, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Sulfuric Acid Mist	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004)**

2. The permittee may be required for continued operation to verify PM, CO, NOx, lead, and SO_2 emission rates from EU002 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
NOx	40 CFR Part 60, Appendix A
SO_2	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1)(a), R 336.1205(3), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a))**

2. The permittee shall monitor, in a satisfactory manner, the virgin aggregate feed rate and the RAP feed rate to the EU002 on a continuous basis. **(R 336.1224, R 336.1225, R 336.1702)**

3. The permittee shall monitor, with a handheld CO monitor, the CO emissions from EU002 and the production data associated with the time the emissions data were collected. The CO emissions should be less than 500 ppmv to ensure EU002 is operating properly. One data set shall be recorded for each of the following occurrences:
   a. Upon start-up of each paving season.
   b. Upon a malfunction.
   c. After every 500 hours / two weeks of operation.

   A data set shall consist of at least eight separate CO readings and shall be taken over a total time period of 30 minutes or longer. Any request for an alternate monitoring schedule shall be submitted in writing to the AQD District Supervisor for review and approval. Data collected by this method shall be used for determining proper burner operation. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

4. The permittee shall monitor Particulate Matter emissions and operating information for EU002 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and I. The permittee shall keep records of all source emissions data and operating information on file and make them available upon request. **(40 CFR Part 60 Subparts A & I)**

5. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all drum mixer/burner and fabric filter dust collector components of EU002 maintained and operating in a satisfactory manner at all times. The owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to EU002. Maintenance records for the fabric filter dust collector shall be consistent with the Preventative Maintenance Program specified in Appendix B. All records shall be kept on file and made available to the Department upon request. **(R 336.1910, R 336.1911)**

6. The permittee shall keep the following records for each calendar month that EU002 is operated:
   a. Identification, type and the amounts (in gallons) of all fuels combusted (including recycled used oil).
   b. Sulfur content (percent by weight), specific gravity, flash point, and higher heating value (BTU/lb) of all fuel oils being combusted.
   c. Tons of HMA containing RAP produced, including the average percent of RAP per ton of HMA produced containing RAP.

   All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1301, R 336.1402, R 336.1702)**

7. The permittee shall keep intermittent daily records of the following production information for EU002:
   a. The virgin aggregate feed rate.
   b. The RAP feed rate.
   c. The asphalt paving material product temperature.
   d. Information sufficient to identify all components of the asphalt paving material mixture.

   Upon start-up, the initial mix design and time shall be recorded. When a new mix design is activated after start-up, the time and new mix design shall be recorded. All records shall be kept on file until the end of the paving season in which they were recorded and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

8. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of all criteria pollutants and TACs listed in the Emission Limit Table for EU002. If stack test results for EU002 exist for any of the aforementioned pollutants, those stack test results may be used to estimate pollutant emissions subject to the approval of the AQD. In the event that stack test results do not exist for a specific pollutant, the applicable emission factor listed in the Emission Limit Table shall be used to estimate the emissions of a pollutant from EU002. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

9. The permittee shall keep records, as described in SC VI.3, of all CO emissions and related production data including the dates and times emissions were monitored. This data shall be used to ensure proper operation of the drum dryer or associated burner. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

10. The permittee shall keep, in a satisfactory manner, daily, monthly and 12-month rolling time period records of the amount of HMA paving materials produced from EU002. All records shall be kept on file and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3))**

11. The permittee shall maintain shipment records demonstrating compliance with the RUO content limits in SC II.7 as described in Appendix D. All records shall be kept on file and made available to the Department upon request.[1] **(R 336.1225)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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. SV002	54	105	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and I, as they apply to EUHMAPLANT. **(40 CFR Part 60 Subparts A & I)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: EUYARD

DESCRIPTION: Fugitive dust sources associated with the HMA facility, consisting of all plant roadways, the plant yard, all material storage piles, and all material handling operations except cold feed aggregate bins.

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT:

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUYARD unless the fugitive dust control plan specified in Appendix A has been implemented and is maintained. **(R 336.1371, R 336.1372, Act 451 324.5524)**

IV. DESIGN/EQUIPMENT PARAMETERS

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. All required calculations shall be completed in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1371, R 336.1372)**

2. The permittee shall calculate in a satisfactory manner, the annual fugitive dust emissions. The fugitive dust emissions shall be calculated using the current U.S. EPA Compilation of Air Pollutant Emission Factors (AP-42) or other emission factors approved by the AQD such as those used in the Michigan Air Emissions Reporting System (MAERS). The actual emissions for EUYARD shall be reported to the AQD through the annual emission reporting required under Section 5503(k) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. **(R 336.1371, R 336.1372)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: EUACTANKS

DESCRIPTION: Six liquid asphalt cement storage tanks, three at 50,000 gallons capacity and two at 30,000 gallons capacity and one 40,000 gallon tank.

Flexible Group: FGFACILITY

POLLUTION CONTROL EQUIPMENT: A vapor condensation and recovery system

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUACTANKS unless the vapor condensation and recovery system is installed, maintained, and operated in a satisfactory manner.[1] **(R 336.1224)**

IV. DESIGN/EQUIPMENT PARAMETERS

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 maintain records for all maintenance activities on EUACTANKS according to the manufactures specifications to determine that the vapor condensation and recovery system is operating properly. All records shall be kept on file and made available to the Department upon request. **(R 336.1224, R 336.1702, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: EUSILOS

DESCRIPTION:

Flexible Group ID:

POLLUTION CONTROL EQUIPMENT:

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUSILOS unless the emission capture system for the top of each storage silo is installed, maintained, and operated in a satisfactory manner.[1] **(R 336.1224)**

2. The permittee shall not operate EUSILOS unless all the silo load-out activities occur in an area, which is permanently enclosed except for truck entrance and exit points. Emissions collected from the truck load-out area shall be vented into the burning zone of EU002 or controlled by equivalent means. The permittee shall not operate EUSILOS unless the silo load-out control system is installed, maintained and operated in a satisfactory manner.[1] **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

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 maintain records for all maintenance activities on EUSILOS according to the manufactures specifications to determine that the silo load-out control system is operating properly. All records shall be kept on file and made available to the Department upon request. **(R 336.1224, R 336.1702, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EU002, EUYARD, EUACTANKS, EUSILOS

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT:

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. CO	89.9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(3)
2. SO_2	89.9tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(3)
3. NO_x	89.9tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(3)
4. VOC	89.9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI.2	R 336.1205(3
5. Each Individual HAP	Less than 9.0 tpy*	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)
6. Aggregate HAPs	Less than 22.5 tpy *	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3
* Beginning on August 1, 2018, and continuing for the first 12 calendar months, this limit applies to the cumulative total HAP emissions. Thereafter, the limit shall become a 12-month rolling limit.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

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. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1201)**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO, SO2, NOx, VOC, Individual HAPs, and Aggregate HAPs emission calculation records for FGFACILITY, as required by SC I.1 through SC I.6. The permittee shall keep all records on file at the facility and make the records available to the Department upon request. **(R 336.1205(3))**

3. The permittee shall keep the following information on a monthly and rolling 12-month rolling time period basis for FGFACILITY: **(R 336.1205(3))**
   a. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
   b. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months.

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

Appendix A
FUGITIVE DUST CONTROL PLAN

PURPOSE: This plan provides dust control strategies for the areas adjacent to and associated with the equipment operations involved in the manufacture of Hot Mix Asphalt (HMA) paving materials.

1. SITE MAINTENANCE

a. Dust on all areas where vehicular traffic will travel shall be controlled by the application of water, sweeping, vacuuming, or other acceptable dust control method. This will occur a minimum of two times per month or more frequently as dictated by weather conditions and vehicular activity. The dust control method shall be acceptable as determined by the District Supervisor.

b. The speed of vehicles on the site will be limited to 10 miles per hour or less. Signs will be posted to advise drivers of the speed limitation.

c. Stock piling will be performed in a manner that minimizes freefall drop distance.

d. Piles will be maintained to prevent fugitive dust. This includes the use of watering, covering and encrusting agents.

2. MANAGEMENT OF ON-SITE ROADWAYS

a. All the roadways on which the HMA haul vehicles will travel are paved with HMA. This includes the roadway on which the vehicles travel around the process equipment to be loaded with HMA paving materials.

b. During the operating season, the paved plant roads shall be controlled by the application of water, sweeping, vacuuming, or other acceptable dust control method that minimizes the introduction of the dust to the ambient air to control fugitive dust emissions and track-out dust. This will occur a minimum of two times per month or more frequently as dictated by weather conditions and vehicular activity. The dust control method shall be acceptable as determined by the District Supervisor.

c. During the operating season, the unpaved travel surfaces shall be controlled by the application of water, sweeping, vacuuming, or other acceptable dust control method on a frequency sufficient to meet the visible emission opacity standard of five (5) percent opacity specified in Section 5524 of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

d. Any aggregate spillage on roads shall be removed immediately.

3. ON-SITE MANAGEMENT OF HAUL VEHICLES

a. INCOMING TRUCKS: All trucks entering the site to deliver aggregates will be required to have the loads covered.

b. OUT-GOING TRUCKS: All trucks leaving the site with HMA paving materials will be required to cover their loads prior to leaving the site. A sign shall be posted to advise drivers of this requirement.

4. MANAGEMENT OF FRONT-END LOADER OPERATIONS

The front-end loader operator shall be directed to avoid overfilling the bucket of the loader and the feed hoppers to prevent spillage, and to minimize the drop height of the material when loading the feed hoppers or transferring material to stockpiles.

5. RECORDKEEPING

Records of dust control activities on travel surfaces and other surfaces where fugitive dust emissions occur shall be kept on file and made available to MDEQ staff upon request until the end of the paving season. The records will indicate the date, time, what was observed or the reason for the dust control activity (routine or other), and what action was taken. The record shall be maintained in the Operations Log Book.

6. FUGITIVE EMISSIONS FROM PROCESS EQUIPMENT AND FABRIC FILTER DUST COLLECTOR

Any fugitive emissions from leak(s) and malfunction(s) from any transfer system, storage bin, mixer, hopper, or fabric filter dust collector shall be immediately corrected to prevent further fugitive emissions.

Appendix B
PREVENTATIVE MAINTENANCE PROGRAM FOR THE FABRIC FILTER DUST COLLECTOR

The Preventative Maintenance Program for the Fabric Filter Dust Collector is for the purpose of keeping the dust collector in good operating condition, and thereby, maintaining the rated capture efficiency of the dust collector for the control of particulate matter. ALL REFERENCES TO VISIBLE EMISSIONS IN THIS DOCUMENT, PARTICULARLY IN SEC. 5, REFER SPECIFICALLY TO VISIBLE EMISSIONS CAUSED BY A DUST (PARTICULATE) EMISSION.

1. FABRIC FILTER DUST COLLECTOR OPERATING PRESSURE DROP

a. The pressure drop across the fabric filter dust collector shall be continuously measured and the minimum pressure drop shall not be less than 2 inches, water gauge, except when a large number of filter bags have been replaced or other reason acceptable to the AQD.

b. The pressure drop across the fabric filter dust collector shall be recorded at least once per day and kept in a bound notebook. These data shall be recorded in the Daily Operations Log Book.

2. FABRIC FILTER DUST COLLECTOR /PLANT ALARM SYSTEM

The fabric filter dust collector shall be equipped with a high temperature sensor and alarm system. The alarm system shall be designed to set off an alarm when the high temperature set-point has been violated, and, to begin a sequential shut-down of the plant if the situation is not resolved within a very short period of time after the alarm sounds.

3. HANDLING AND STORAGE OF FABRIC FILTER DUST

Accumulated fabric filter dust (particulate) shall be stored and/or be disposed of in a manner which minimizes the introduction of the air contaminants to the outer air.

4. PIPING AND SEALS MAINTENANCE

Piping and seals shall be replaced as needed.

5. VISIBLE EMISSIONS AND ACTIONS TO BE TAKEN

In the event visible emissions, which appear to exceed the standard allowed in General Condition No. 11 of this Permit to Install, are observed at the discharge point of the stack, the following actions shall be taken:

If no certified visible emissions reader can be on-site within 60 minutes of observing the visible emissions to verify the emission density, operations shall be ceased immediately and the cause of the visible emissions determined and corrected prior to operating the plant again.

REMINDER: If the visible emissions continue for more than 2 hours, in excess of an emission standard, an excess emissions report must be made to MDEQ.

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6. BLACK LIGHT INSPECTIONS

A black light test shall be conducted at least once per year - before operations begin for a paving season. Black light inspection equipment and materials shall be available for use at the facility and used as needed during the paving season.

Appendix B - Continued

7. INVENTORY OF FILTER BAGS

An inventory of fabric filter bags shall be maintained by the facility owner or operator so that filter bags will be available to this site within four hours of requesting the filter bags. In addition, a minimum of 15 filter bags shall be kept on-site at all times. An inventory of other replacement parts for the fabric filter dust collector shall be maintained at all times.

8. FABRIC FILTER DUST COLLECTOR INSPECTION RECORD

A written record in a bound notebook of the following shall be maintained by the owner or operator of the facility:

- Visual inspections of the interior components of the fabric filter dust collector, including date, time, and findings;
- Black light inspections, including date, time, and findings;
- Number of filter bags installed as a result of each inspection to replace filter bags already in use in the fabric filter dust collector, including date, time, location, and whether the replacement filter bag was brand new or a cleaned, previously used filter bag;
- An explanation (i.e., a description of the damage found) for each filter bag removed from the fabric filter dust collector and confirmation that another filter bag was installed to replace it;
- Each observation of visible emissions at the stack discharge point and description of response to the observed visible emission, including date and time of visible emission occurrence and results of EPA Method 9 observation, if any. Any such visible emission shall be recorded in the Daily Operations Log Book and made available upon request to the AQD.
- All significant maintenance activities performed on the fabric filter dust collector.

Appendix C
EMISSION ABATEMENT PLAN FOR STARTUP, SHUTDOWN AND MALFUNCTIONS

NORMAL STARTUP PROCEDURE

The plant computer controls plant startup. At startup the plant operator will enter the mix design, the tons per hour and the number of tons to be produced into the plant operations computer. Once the operator starts the equipment the computer will start the cold feed bins and set the feed rate (tons per hour) requested. The feed rate will be different for each mix design and production rate.

When the plant computer senses that aggregate is crossing over the belt scale, a timer that has been previously calibrated for the particular mix, starts to count down. When the timer reaches zero the asphalt is started and fed to the mixer. The two products (aggregate and asphalt cement) meeting together at the correct time will eliminate most dust that would escape from the mixing drum.

Material that is discharged at startup is removed by way of the drag slat and discharge gate. This material is dropped into a loader bucket, dump truck or a holding area. The material is then moved to the recycle pile.
The drop height from the discharge gate is kept to the very minimum to keep any escaping dust from blowing.

NORMAL SHUTDOWN PROCEDURE

When shutting down the mixing operation, the plant computer stops the cold feed bins first. Material that is in process is allowed to proceed down the weigh belt. When the weigh belt senses that all material has cleared the belt a timer starts counting down to shut off the asphalt cement. This timer allows all of the aggregate to clear the drying drum and enter the mixer. The asphalt cement is timed for each mix design so that the last of the aggregate and the asphalt cement meet at the mixing drum together.

Any mix that is waste is discharged into the loader bucket, dump truck or into a holding area under the drag slat discharge gate and is taken to the RAP pile for later crushing

HOT STOPS - HOT STARTS

If the silos become too full, the plant operator may have to make a hot stop, (dryer and mixer full of material). No material is discharged during a hot stop. The plant can remain in this mode for up to two hours.

After a hot stop, the plant will make a hot start. The exhaust fan and burner will be started and once running, the rest of the plant will be started. Cold or off-spec material is discharged through the drag slat discharge gate and placed in the RAP pile for later use.

MALFUNCTION STOPS

If a malfunction (computer or mechanical) occurs during drying/mixing operations, a hot stop will be initiated until the problem is corrected. If the problem cannot be corrected and the dryer/mixer must be emptied, the asphalt cement can be controlled manually. This will be done only after all attempts to correct the problem are exhausted. If the asphalt pump fails and cannot be repaired, the drum will be emptied of mixed material until the discharged aggregate gets dusty. The drum will then be stopped and the asphalt pump repaired.
A water supply at each location can be used to knock down any blowing dust.

IDENTIFICATION OF SUPERVISORY AND MAINTENANCE PERSONNEL

An updated list of current supervisory and maintenance personnel shall be kept at the plant. Descriptions of the responsibilities of these individuals for operation of the plant during startups, shutdowns, or malfunctions, as well as inspections and repairs, shall be stated on the updated list.

Appendix C – Continued

DESCRIPTION OF INSPECTED ITEMS

A daily walk around inspection will be done each morning while the plant is warming up. After startup, observations will be carried out continuously throughout the day by the plant operator and the loader operator during operations. The following items shall be inspected/observed:

- Roadways (fugitive dust)
- Cold feed bins (falling aggregate)
- Aggregate feed belts (falling aggregate)
- Dryer (seals for dust escaping)
- Bucket elevator (seals for dust escaping)
- Aggregate chutes (seals for dust escaping)
- Screen (door seals for dust escaping)
- Weigh hopper (seals for dust escaping)
- Mixer (seals for dust escaping)
- Baghouse stack (opacity)
- Baghouse screws (shaft and door seals for dust escaping)
- Chutes, screw augers, and housings (for any leaks)

A more thorough inspection will be done during the winter shutdown (between December 1 and April 1) for maintenance and repairs. The following items will be inspected and repairs made as needed:

- Cold feed bins (seals and belts rollers)
- Belt lines (belts and rollers)
- Dryer (shell, seals, flights)
- Bucket elevator (chain, buckets, bearings, seals)
- Chutes (liners, seals)
- Screen (door seals, fugitive ductwork)
- Weigh hopper (seals, calibration)
- Mixer (seals, wear plate)

The baghouse will get a thorough inspection from the front inlet to the rear exhaust fan. This inspection will be done every spring before the paving season starts. (Additional visual inspections may be required before and during the paving season as required by Appendix B). The following items to be inspected are:

- Ductwork (inspected for thickness, will it last for the season)
- Blow pipes, diaphragm valves (are they working, good connections)
- Bags and cages (condition of bags, age, number replaced during last season)
- Dust screws - shaft seals and screw cover doors

REPLACEMENT PARTS

As required by Appendix B, the following shall be kept in stock at all times:

- A minimum of 15 bags.
- A minimum of 5 pounds of black light powder. (Recommended quantity for the number of square feet of baghouse cloth.)
- A minimum of two (2) tubes of silicone caulk for minor leaks around doors and seals.

Appendix C – Continued

BAGHOUSE VARIABLES AND MONITORING

The baghouse is monitored continuously (as specified in Appendix B) by the use of a magnehelic gage. The pressure differential between the dirty and clean side of the baghouse shall be maintained above 2 inches water gauge. If the pressure rises above 10 inches water gauge, signaling an inoperative diaphragm valve, the plant shall be stopped and the defective valve repaired or replaced. If the differential pressure drops below 2 inches water gauge the company shall inspect for a torn bag or a problem with the tubesheet between the dirty and clean side of the baghouse. This problem will also result in a dirty stack. The only time the baghouse will normally drop below 2 inches water gauge is if a large number of filter bags are replaced.

If a large number of bags are replaced (over 100) the pressure on the magnehelic will drop slightly. This drop will only last for a day or less depending on the production.

Monitoring of the baghouse is done by observation, magnehelic or by the high temperature alarm that is set to go off at a stack temperature of 375/400 degrees Fahrenheit.

CORRECTIVE PROCEDURES AND RESPONSIBLE PERSONS

This startup, shutdown, malfunction plan shall be followed to meet the compliance limits. If the limits are exceeded it is the responsibility of the plant supervisor, or in his absence the plant operator, to stop the plant and correct the problem immediately. Rule 336.1912 shall be followed when abnormal conditions exist.

DRUM MIX AND BATCH - NORMAL STARTUP PROCEDURES

During startup, operation and shutdown the following items will be monitored continuously:

Stack Temperature - As material starts through the plant the temperature must be brought up slowly by manually adjusting the burner. As the operator opens the burner, the exhaust fan damper must also be opened to maintain one quarter to one half inch of suction on the burner end of the drum.

Mix Temperature - As material starts flowing through the plant it is critical to watch mix discharge temperature in addition to the stack temperature. A discharge temperature that is too high will cause blue smoke. A temperature that is too low will produce an unacceptable product.

Exhaust Magnehelic - As material is fed into the drum and the burner is opened up, the differential pressure in the baghouse will increase. As the plant reaches normal operating parameters the pressure differential will settle between 2 and 10 inches water gauge. The differential pressure can be adjusted by opening or closing the exhaust damper. The operator shall keep between one quarter and one half-inch draw on the burner end for maximum efficiently.

Along with monitoring the above items the operator shall monitor the weather to determine any changes to the moisture levels in the aggregate and RAP. The moisture content determines how to adjust the burner to reach the desired mix discharge temperature.

Appendix D

Compliance Monitoring Plan for the Characterization of recycled used oil at Hot Mix Asphalt Facilities

Purpose: This Compliance Monitoring Plan (CMP) describes the requirements for combusting recycled used oil (RUO) in the hot mix asphalt (HMA) facility. Each Purchase Order that is executed by a facility for the purchase of recycled used oil shall be accompanied by specific requirements that the supplier must meet. The requirements include RUO characterization information, Quality Assurance/Quality Control (QA/QC) data, and a demonstration that the RUO supplied does not exceed the allowable levels for RUO properties and constituents listed in this CMP, the Permit to Install special conditions, and 40 CFR 279.11.

In Michigan, used oil management is regulated by the Michigan Department of Environmental Quality (MDEQ) by several divisions under various Parts of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), Act 207 of 1941, and the applicable Administrative Rules. In addition to the MDEQ regulations, used oil management may be subject to requirements of other agencies including, but not limited to the U.S. Environmental Protection Agency, the U.S. Department of Transportation, the Michigan Department of Consumer and Industry Services, and the local fire authorities. Information concerning applicable regulations may be obtained from the MDEQ Environmental Assistance Center, at 517-373-9400.

REQUIREMENTS FOR SUPPLIERS OF RECYCLED USED OIL

A certificate of analysis shall be provided by the supplier upon delivery of each truckload of recycled used oil accepted for use as fuel at the facility. Each batch of RUO shall have a unique certificate of analysis. A batch is a quantity of used oil, contained in one storage unit (i.e., a tank, tanker truck, barge, etc.) where no additional oil is put into the storage unit after testing. If additional oil is added to a storage unit, a new certificate of analysis is necessary. Information to be presented on the certificate of analysis shall include:

- A unique batch identification number
- Date of delivery
- Dates of performance of analyses
- Analytical methods used
- Specific Gravity or API Gravity
- Higher Heating Value (in Btu per pound)
- Flash Point (in degrees Fahrenheit)
- Results of analyses for arsenic, cadmium, chromium, lead, manganese, sulfur, polychlorinated biphenyls (PCBs), and total halogens.
- The AQD recommends that the appropriate allowable levels for RUO properties and constituents be listed on the certificate of analysis to simplify verification.

ALLOWABLE LEVELS

Allowable levels for RUO properties and constituents are listed in the Permit to Install special conditions and below:

PROPERTY/CONSTITUENT	ALLOWABLE LEVEL
Higher Heating Value	17,000 Btu per pound, minimum
Flash Point	100 degrees Fahrenheit, minimum
Arsenic	5.0 ppm, maximum
Cadmium	2.0 ppm, maximum
Chromium	10.0 ppm, maximum
Lead	100.0 ppm, maximum
Manganese	2.0 ppm, maximum
Sulfur	1.0 percent, maximum
Polychlorinated Biphenyls (PCBs)	1.0 ppm, maximum
Total Halogens	1,000 ppm, maximum

ON-SITE RUO CHARACTERIZATION PROGRAM

Upon receipt of each shipment of RUO by the facility, a check shall be made to ensure no exceedances of the allowable levels for RUO properties and constituents are identified by the supplier's analytical results. A representative sample shall be screened for Total Halogens using the U.S. EPA SW-846 Method 9077 and the screening results recorded. If the certificate of analysis shows an exceedance of an allowable level or the screening shows an exceedance of the allowable level for Total Halogens, the shipment shall not be accepted by the facility.

Verification of the supplier certificate of analysis information, by testing, at owner's expense, in accordance with Department requirements will be required. Random monthly sampling and analysis shall be conducted for each supplier of RUO for the first 12-months from the date of the first delivery of RUO by the supplier. Thereafter, sampling and analysis shall be conducted not less than once per calendar quarter in which RUO is received for each supplier of RUO.

Sampling: Samples shall be taken at the time of delivery from the delivery truck, prior to mixing with oil in the on-site storage tank, and labeled with the batch identification number. Sufficient RUO shall be collected to provide two samples, each of sufficient volume for the required analyses. If one of the two samples is sent to an independent laboratory for analysis, the second sample shall be kept available for duplicate analysis. Sample collection, handling, and storage shall be in accordance with the Quality Assurance Plan to be provided by the independent laboratory. Samples shall be kept available for not less than five months from the date of collection.

Analysis: The purpose of the analysis of the RUO sample is the verification of the information provided in the supplier certificate of analysis. The required analyses are listed in the section of this CMP titled "Requirements for Suppliers of Recycled Used Oil." Results of the analyses shall be reported to the facility within the appropriate sample holding time for each analytical method to provide the opportunity for analysis of the duplicate sample.

Laboratory: A Quality Assurance Plan (QAP) shall be developed by any independent laboratory used by the facility for RUO analysis. A copy of the QAP shall be submitted by the facility to the AQD District Office 60 days prior to the use of that laboratory. Detailed in the QAP will be the QA/QC procedures, sample handling, storage, and chain of custody procedures, analytical methods for all analyses, a description of the laboratory instrumentation, and the instrumental detection limits. The analytical methods used by the independent laboratory must be consistent with the methods used by the RUO supplier's laboratory. A list of acceptable QA/QC requirements may be obtained from AQD, Compliance Support Unit in Lansing. The facility shall maintain a copy of the approved QAP on site.

EXCEEDANCES OF ALLOWABLE LEVELS

All exceedances of allowable levels will be reviewed by the AQD for enforcement actions. In addition to possible enforcement actions, the facility shall take all appropriate actions described in Step 1 and Step 2 below to address the exceedance.

ACTIONS TO BE TAKEN:

STEP 1

If the laboratory analytical results reported under the on-site RUO characterization program show that an allowable level has been exceeded, the facility shall notify the AQD District Office verbally within two business days after receiving these analytical results. The verbal notification shall be followed by a written report of the results within five business days after making the verbal report.

At the option of the facility, the duplicate sample may be analyzed within the appropriate sample holding time for each analytical method after the facility receives the results showing an exceedance of any allowable level. Analysis may be performed solely for that property or constituent for which an exceedance is identified.

Upon receipt of the laboratory results for the duplicate sample, the facility shall notify the AQD District Office verbally within two business days of receiving them. The verbal notification shall be followed by a written report of the results within five business days after making the verbal report.

STEP 2

When an exceedance of an allowable level is identified, the facility shall:

- Notify the RUO supplier that an exceedance has occurred.
- Provide copies of the laboratory analytical results to the RUO supplier.
- Inform the RUO supplier of the required increase in sampling frequency described below.
- Explain the requirement for discontinuing RUO deliveries if a second exceedance occurs within six months.

Increase in Sampling Frequency: When an exceedance occurs, samples from three of the next six loads of RUO received from the supplier shall be collected and analyzed in accordance with the on-site RUO characterization program contained in this CMP. Thereafter, monthly random sampling shall continue for the next 12 months from the date of receipt of the load from which the exceedance occurred.

Discontinuing RUO Deliveries: If a second load of recycled used oil from the same supplier has an exceedance within six months after the first exceedance, the facility shall immediately discontinue accepting RUO deliveries from that supplier. If a supplier is terminated as a result of a second exceedance within six months, the facility shall notify the AQD District Office in writing within ten business days that RUO deliveries from the supplier have been discontinued.

REPORTING REQUIREMENTS

Upon request from the AQD District Supervisor and solely for those quarters in which RUO was delivered to the facility, summaries, based on calendar quarters, supplier certificates of analysis and the analytical results obtained from the on-site RUO characterization program shall be provided to the AQD District Supervisor no later than thirty (30) days following the last day in the calendar quarter. Each quarterly summary shall include the following information:

- RUO supplier's name for each delivery;
- Date of each delivery and sample;
- Batch identification number;
- Whether an allowable level for RUO properties and constituents was exceeded (for each sample) and identification of which allowable level(s), if any, were exceeded.

RECORDKEEPING REQUIREMENTS

Copies of the supplier certificates of analysis, the analytical results obtained from the on-site RUO characterization program, and quarterly summaries as described above shall be kept on file for a period of at least five years from the date of receipt and made available to the AQD upon request.

INSPECTIONS

If an AQD inspector visits the facility to collect samples of the RUO, sufficient RUO shall be provided to the inspector for the required analyses listed in this CMP.

RECYCLED USED OILS WITH HALOGEN CONCENTRATIONS OVER 1,000 PPM

An Addendum to this CMP contains additional requirements for RUO with halogen concentrations over 1000 parts per million (ppm). The use as a fuel of RUO containing greater than 1,000 ppm halogens must be specifically allowed in the Special Conditions of the Air Use Permit for the facility.