

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

January 22, 2016

**PERMIT TO INSTALL**  
128-73F

**ISSUED TO**  
Ace Asphalt & Paving Company, Inc.

**LOCATED AT**  
4190 Jimbo Drive  
Burton, Michigan

**IN THE COUNTY OF**  
Genesee

**STATE REGISTRATION NUMBER**  
B1597

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: <b>November 30, 2015</b>	
DATE PERMIT TO INSTALL APPROVED: <b>January 22, 2016</b>	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 <sub>2</sub> e	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
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H <sub>2</sub> S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO <sub>x</sub>	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		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.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Flexible Group ID</b>
EUHMAPLANT	Hot mix asphalt (HMA) facility including: Aggregate conveyors, 500 ton per hour counterflow drum, Fabric filter dust collector	NA
EUYARD	Fugitive dust sources including: Plant roadways, Plant yard, Material storage piles, Material handling operations (excluding cold feed aggregate bins)	NA
EUACTANKS	Liquid asphalt cement storage tanks	NA
EUSILOS	Hot Mix Asphalt (HMA) paving material product storage silos	NA
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: EUHMAPLANT**

**DESCRIPTION:** Hot mix asphalt (HMA) facility including: Aggregate conveyors, 500 ton per hour counterflow drum, Fabric filter dust collector

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Fabric filter dust collector

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.04 gr/dscf	Test Protocol*	EUHMAPLANT	SC V.3, VI.4, VI.5	40 CFR 60 Subparts A & I
2. PM	0.03 lb/ton	Test Protocol*	EUHMAPLANT	SC V.3, VI.4, VI.5	R 336.1205(1)(a), R 336.1205(3)
3. PM10	0.02 lb/ton	Test Protocol*	EUHMAPLANT	SC V.3, VI.4, VI.5	R 336.1205(1)(a), R 336.1205(3)
4. CO	0.201lb / ton when burning ULSD and RUO <sup>b</sup>	Test Protocol*	EUHMAPLANT	SC V.2, VI.3, VI.9, VI.9	R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702
5. CO	0.198 lb / ton when burning NG and LPG <sup>b</sup>	Test Protocol*	EUHMAPLANT	SC V.2, VI.3, VI.9, VI.9	R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
6. CO	80 tpy <sup>a</sup>	12-month rolling time period as determined at the end of each calendar month	EUHMAPLANT	SC VI.9, VI.9	R 336.1205(1)(a), R 336.1205(3)
7. SO <sub>2</sub>	0.058 lb / ton when burning ULSD and RUO <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.6	R 336.1205(1)(a), R 336.1205(3)
8. SO <sub>2</sub>	0.0042 lb / ton when burning NG and LPG <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.6	R 336.1205(1)(a), R 336.1205(3)
9. NO <sub>x</sub>	0.1225 lb / ton when burning ULSD and RUO <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.6	R 336.1205(1)(a), R 336.1205(3)
10. NO <sub>x</sub>	0.049 lb / ton when burning NG and LPG <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.6	R 336.1205(1)(a), R 336.1205(3)
11. Lead	1.5 ×10 <sup>-5</sup> lb / ton when burning ULSD and RUO <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.6	R 336.1225
12. Lead	2.0×10 <sup>-6</sup> lb / ton whe burning NG and LPG <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.6	R 336.1225
13. Formaldehyde	0.0031 lb / ton <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.8	R 336.1224, R 336.1225
14. 2-Methyl-1-Pentene	0.004 lb / ton <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI.8	R 336.1224, R 336.1225
22. Hydrogen Chloride	0.006 lb / ton <sup>b</sup>	Test Protocol*	EUHMAPLANT	VI. 8	R 336.1224, R 336.1225

<sup>a</sup> Annual limits based on production limits specified in SC II.XXX

<sup>b</sup> Pound pollutant per ton of HMA paving material produced.

\* Test Protocol shall specify averaging time.

## **II. MATERIAL LIMITS**

1. The permittee shall not burn any fuel other than natural gas (NG), liquid petroleum gas (LPG), ultra low sulfur diesel (ULSD), or recycled used oil (RUO) in EUHMAPLANT. **(R 336.1224, R 336.1225, R 336.1702)**
2. The permittee shall not burn in EUHMAPLANT 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)**

<b>Contaminant</b>	<b>Limit</b>	<b>Units</b>
Arsenic	5.0	ppmw
Cadmium	2.0	ppmw
Chromium	10.0	ppmw
Lead	100.0	ppmw
PCBs	1.0	ppmw
Total Halogens	4000.0	ppmw
Sulfur	1.5	Weight %
Minimum Flash Point	100.0	°F
Maximum Ash Content	1.0	Weight %

3. The permittee shall not use any asbestos tailings or waste materials containing asbestos in EUHMAPLANT 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 processed in EUHMAPLANT 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 800,000 tons of HMA paving materials in EUHMAPLANT 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. While combusting diesel fuel or recycled used oil in EUHMAPLANT, the permittee shall not process more than a total of 550,000 tons of HMA paving materials per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a), R 336.1205(3))**
7. The permittee shall not process more than 500 tons of HMA paving materials in EUHMAPLANT per hour based on a daily average, which shall be determined by dividing the daily HMA production by the daily operating hours. **(R 336.1224, R 336.1225, R 336.1702)**

## **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUHMAPLANT 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 451 324.5524)**
2. The permittee shall not operate EUHMAPLANT unless the Preventative Maintenance Program specified in Appendix B has been implemented and is maintained. **(R 336.1910, R 336.1911)**
3. No later than 60 days after issuance of this permit, the permittee shall submit to the AQD District Supervisor, for review and approval, an emission abatement plan for startup, shutdown and malfunctions of the

equipment contained in EUHMAPLANT. The permittee shall not operate EUHMAPLANT after the date of submittal unless the plan is implemented and maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**

4. The permittee shall not operate EUHMAPLANT unless the Compliance Monitoring Plan (CMP) for RUO specified in Appendix C, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. **(R 336.1201(3), R 336.1225, R 336.1371, R 336.1372, R 336.1910, R 336.1911, Act 451 324.5521, 40 CFR 279.55)**
5. The permittee shall maintain the efficiency of the EUHMAPLANT 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 EUHMAPLANT as shown by the CO emission monitoring data. **(R 336.1205)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EUHMAPLANT 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)**

#### **V. TESTING/SAMPLING**

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

1. Verification and quantification of odor emissions from EUHMAPLANT, by testing at owner's expense, in accordance with Department requirements, may be required for continued operation. Within 60 days upon notification from AQD District Supervisor, a complete stack sampling and odor threshold analysis plan using the Dynamic Dilution Method shall be submitted to the AQD. The stack sampling plan shall include provisions for various fuel usages, plant operating conditions, and odor neutralizer system operation (if any). The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results within 120 days from notification from the AQD District Supervisor. **(R 336.2001, R 336.2003, R 336.2004)**
2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation, the permittee shall verify and quantify emission rates of Carbon Monoxide from EUHMAPLANT, by testing at owner's expense, in accordance with Department requirements. No less than 45 days prior to testing, a complete test plan including a testing schedule shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results within one calendar year of permit issuance. **(R 336.1205(1)(a), R 336.1205(3), R 336.2001, R 336.2003, R 336.2004)**
3. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation, federal Standards of Performance for New Stationary Sources require verification of particulate emission rates from EUHMAPLANT, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and I. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR 60.7(a)(3). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 45 days prior to testing, a complete test plan including a testing schedule shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR Part 60 Subparts A & I)**

## **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 30<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1201, 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 EUHMAPLANT 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 EUHMAPLANT and the production data associated with the time the emissions data were collected. The CO emissions should be less than 500 ppmv to ensure EUHMAPLANT 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 of the drum dryer or its associated burner.
  - c) Once per calendar month in which EUHMAPLANT operates.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 emissions and operating information in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and I for EUHMAPLANT. The permittee shall keep records of all source emissions data and operating information on file AT THE FACILITY 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 EUHMAPLANT 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 EUHMAPLANT. 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 EUHMAPLANT is operated:
  - a) Identification, type and the amounts (in gallons) of all fuel oils combusted.
  - 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 hot mix asphalt containing RAP produced, including the average percent of RAP per ton of hot mix asphalt produced containing RAP.
  - d) Tons of hot mix asphalt produced while burning each fuel type
  - e) Tons of total hot mix asphalt producedAll 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 336.1402, R 336.1702)**
7. The permittee shall keep intermittent daily records of the following production information for EUHMAPLANT:
  - 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.

- e) Tons of hot mix asphalt produced while burning each fuel type
- f) Tons of total hot mix asphalt produced

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 EUHMAPLANT. If stack test results for EUHMAPLANT 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 EUHMAPLANT. 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, average daily, monthly and 12-month rolling time period records of the amount of HMA paving materials produced while burning each fuel type in EUHMAPLANT. The permittee shall keep, in a satisfactory manner, average daily, monthly and 12-month rolling time period records of the total amount of HMA paving materials produced in EUHMAPLANT. 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 monitor, in a satisfactory manner, the fuel usage rate for EUHMAPLANT on a daily basis. **(R 336.1205(1)(a), R 336.1205(3), R 336.1225, R 336.1402)**

**VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUHMAPLANT. **(R 336.1201(7)(a))**

**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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHMAPLANT	68	50	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>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 including: Plant roadways, Plant yard, Material storage piles, Material handling operations (excluding cold feed aggregate bins)

**Flexible Group ID:** NA

**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 B 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 30<sup>th</sup> 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 for EUYARD using the current U. S. EPA Compilation of Air Pollutant Emission Factors (AP-42) or other emission factors approved by the Department such as those used in the MAERS. **(R 336.1371, R 336.1372)**

**VII. REPORTING**

1. The permittee shall report the actual emission levels for EUYARD 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 (Act 451). **(R 336.1371, R 336.1372)**

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**The following conditions apply to: EUACTANKS**

**DESCRIPTION:** Liquid asphalt cement storage tanks

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Vapor condensation and recovery system

**I. EMISSION LIMITS**

N/A

**II. MATERIAL LIMITS**

N/A

**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. **(R 336.1224)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

N/A

**V. TESTING/SAMPLING**

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

N/A

**VI. MONITORING/RECORDKEEPING**

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

N/A

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

N/A

**IX. OTHER REQUIREMENTS**

N/A

**Footnotes:**

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

**The following conditions apply to: EUSILOS**

**DESCRIPTION:** Hot Mix Asphalt (HMA) paving material product storage silos

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Load-out controls and top of silo controls

**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. **(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 EUHMAPLANT 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. **(R 336.1224, 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))**

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>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.

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**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  
COMPLIANCE MONITORING PLAN (CMP)  
FOR FACILITIES BURNING RECYCLED USED OIL (RUO)**

**A. All RUO must be acceptable for use as a fuel under federal and state used oil regulations. A certificate of analysis must accompany each delivery and must be kept on file.**

Each shipment from the used oil supplier must be accompanied by documentation demonstrating that the used oil meets specification levels in 40 CFR 279.11 (Standards for the Management of Used Oil) and R 299.9809, promulgated pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The documentation shall include supplier certification and analytical data. The analysis must be for the batch of used oil accepted for use as a fuel by the permittee. Separate truckloads may have identical documentation from the supplier if they are loaded from a unique batch from a single supplier. A batch is a quantity of used oil contained in one storage unit (i.e., 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 after testing, a new batch has been created.

The supplier certificate of analysis shall be reviewed by the permittee to ensure that the RUO properties and constituents do not exceed any of the used oil specifications contained in the following table prior to acceptance and off-loading of the shipment.

**TABLE 1 - ALLOWABLE LEVELS FOR RUO**

<b>Property / Constituent</b>	<b>Allowable Level</b>
Higher Heating Value	17,000 Btu per pound (minimum)
Arsenic	5.0 ppmw (maximum)
Cadmium	2.0 ppmw (maximum)
Chromium	10.0 ppmw (maximum)
Lead	100.0 ppmw (maximum)
Sulfur	1.5 percent (maximum)
Polychlorinated Biphenyls (PCBs)	1.0 ppmw (maximum)
Total Halogens	4,000 ppmw (maximum)

**Verification:** Shipping records for each load received shall be maintained a minimum of five (5) years.

**B. All RUO deliveries shall be screened for halogens.**

Upon receipt of each RUO fuel shipment and prior to off-loading the RUO fuel, the permittee shall obtain a representative sample according to methods described in EPA publication SW-846 "Test Methods for Evaluation Solid Waste, Physical/Chemical Methods." The sample shall be screened for Total Halogens using SW-846 Method 9077.

**Verification:** Records of the Total Halogens test results shall be maintained a minimum of five (5) years.

**C. Required Laboratory Analysis**

A split sample of the RUO shall be submitted by the facility to an independent laboratory to verify the information provided on the supplier certificate of analysis for the batch. The laboratory analysis shall include the properties and constituents listed in Table 1. A second split sample shall be maintained by the facility until the end of the calendar year and shall be made available to the AQD upon request.

Any independent laboratory used by the facility for RUO analysis shall develop a Quality Assurance Plan (QAP). Detailed in the QAP shall be the QA/QC procedures, sample handling, storage, chain of custody procedures,

### Appendix C – Continued

analytical methods for all analyses, a description of the laboratory instrumentation, and the instrumental detection limits. The analytical methods used by the independent laboratory should be consistent with the methods identified in the RUO Supplier's Analysis Plan pursuant to 40 CFR 279.55. The facility shall maintain a copy of the approved QAP on site or at the corporate offices and be available for AQD inspection.

#### D. Laboratory Analysis Frequency

The laboratory analysis required in this CMP shall be completed per Method 1 and/or Method 2 as applicable.

##### **Method 1 - Pre-Qualification: For a dedicated tank of RUO, one split sample analysis is required.**

For a single batch of RUO, the laboratory analysis shall be required once prior to any shipments from that batch being received at the facility. For Method 1 pre-qualification, a batch is a quantity of RUO contained in the supplier's storage unit where no additional oil is put into the storage unit after a representative sample has been collected for analysis. If additional oil is added to the storage unit, both a new supplier certificate of analysis and laboratory analysis are necessary.

Upon receipt of a shipment of RUO, the shipping paper shall be reviewed to determine if the RUO originated from a pre-qualified batch. All RUO shipments which are not from a pre-qualified batch are required to complete the quarterly sample analysis in Method 2.

**Verification:** A list of RUO batches that have been pre-qualified, along with records of the RUO analytical data from both the supplier and the permittee for the same batch, shall be maintained a minimum of five (5) years.

##### **Method 2 - On-Site Qualification: For all shipments which are not a pre-qualified batch, a quarterly split sample analysis is required.**

When the permittee accepts RUO that is not pre-qualified by Method 1, a minimum of one sample per calendar quarter shall be submitted for the required laboratory analysis. The quarterly sample(s) shall be selected from any of the RUO batches accepted by the permittee that are not pre-qualified by Method 1. Unless an alternative plan is approved by the AQD District Supervisor, the time interval between collection of samples shall be a minimum of 45 days.

**Verification:** A list of all RUO batches accepted and those that have been selected for quarterly sampling, along with records of the RUO analytical data from both the supplier and the permittee for the same batch, shall be maintained a minimum of five (5) years.