

SUPPLEMENT to PERMIT No. 156-95E
Valley Asphalt Company
Flint, Michigan
September 24, 1999

GENERAL CONDITIONS

1. Rule 201(1) - The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, 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.
2. Rule 201(4) - If the installation, reconstruction, relocation, or alteration 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 person to whom this permit was issued, 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, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install.
3. Rule 201(6)(a) - If this Permit to Install is issued for a process or process equipment located at a stationary source that is subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, trial operation is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install and until the appropriate terms and conditions of this Permit to Install have been incorporated into the Renewable Operating Permit. Upon incorporation of the appropriate terms and conditions into the Renewable Operating Permit, this Permit to Install shall become void.
4. Rules 201(6)(b) - 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.
5. Rule 201(8) and Section 5510 of Act 451, P.A. 1994 - 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 Departments' rules or the Clean Air Act.
6. Rule 219 - 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. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality.
7. Rule 901 - 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.

8. Rule 912 - The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. 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 District Supervisor within 10 days, with the information required in this rule.
9. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future applicable requirements which may be promulgated under Part 55 of Act 451, P.A. 1994 or the Clean Air Act.
10. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
11. Operation of this equipment may be subject to other requirements of Part 55 of Act 451, P.A. 1994, and the rules promulgated thereunder.
12. Rule 301 - 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, a person 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.
 - a) A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% 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.
13. Rule 370 - 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).
14. Rule 285 - Except as allowed by Rule 285 (a), (b), and (c), applicant shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application, without prior notification to and approval by the Air Quality Division.
15. The Department may require the applicant to conduct acceptable performance tests, at the applicant's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001.

SPECIAL CONDITIONS
September 24, 1999
(31 Special Conditions)

POLLUTANT EMISSION RESTRICTIONS

1. The particulate emission from the portable drum hot mix asphalt facility, hereinafter "asphalt facility", shall not exceed 0.04 grain per dry standard cubic foot of exhaust gases. This limit is based on the federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subparts A and I.
2. The particulate emission rate from the asphalt facility shall not exceed 12.9 pounds per hour nor 15.0 tons per year. The annual limit is based on a 12-month rolling time period as determined at the end of each calendar month. This condition is necessary to ensure compliance with the emission limits established pursuant to Rule 331.
3. The total combined nitrogen oxides (NOx) emission rate from the asphalt facility shall not exceed 0.1225 pound per ton of asphalt paving materials produced nor 52.1 pounds per hour nor 45.9 tons per year. The annual limit is based on a 12-month rolling time period as determined at the end of each calendar month. This condition is necessary to ensure compliance with Rule 205.
4. The total combined carbon monoxide (CO) emission rate from the asphalt facility shall not exceed 0.198 pound per ton of asphalt paving materials produced nor 84.2 pounds per hour nor 74.3 tons per year. The annual limit is based on a 12-month rolling time period as determined at the end of each calendar month. This condition is necessary to ensure compliance with Rule 205.
5. The volatile organic compounds (VOC) emission rate from the asphalt facility shall not exceed 0.0575 pound per ton of asphalt paving materials produced nor 24.4 pounds per hour nor 21.6 tons per year. The annual limit is based on a 12-month rolling time period as determined at the end of each calendar month. This condition is necessary to ensure compliance with Rules 205 and 225.
6. The sulfur dioxide emission rate from the asphalt facility shall not exceed 0.56 pound per million BTUs heat input, based on a 24-hour period. This is equivalent to using No. 2 fuel oil with a 0.5% sulfur content and a heat value of 18,500 BTUs per pound. This condition is necessary to ensure compliance with Rule 402.
7. The total combined sulfur dioxide (SO₂) emission rate from the asphalt facility shall not exceed 0.056 pound per ton of asphalt paving materials produced nor 23.8 pounds per hour nor 21.0 tons per year. The annual limit is based on a 12-month rolling time period as determined at the end of each calendar month. This condition is necessary to ensure compliance with Rule 205.

8. The lead emission rate from the asphalt facility shall not exceed 0.00000202 pound per ton of asphalt paving materials produced nor 0.000758 pound per hour nor 0.000859 ton per year. The annual limit is based on a 12-month rolling time period as determined at the end of each calendar month. This condition is necessary to ensure compliance with Rules 205 and 225.

CONSTRUCTION SCHEDULE

9. Applicant shall not process more than 750,000 tons of asphalt paving materials in the asphalt facility per 12-month rolling time period as determined at the end of each calendar month. A written record of the amount of material processed shall be kept on file for a period of at least five years and made available to the Department upon request. This condition is necessary to ensure compliance with Rule 205.
10. Applicant shall not process more than 425 tons per hour of asphalt paving materials in the asphalt facility. A written record of the amount of material processed shall be kept on file for a period of at least five years and made available to the Department upon request. This condition is necessary to ensure compliance Rule 205.

OPERATING RESTRICTIONS

11. The applicant shall not operate the asphalt facility for more than 2,700 hours per 12-month rolling time period as determined at the end of each calendar month. A written log of the hours of operation shall be kept on file for a period of at least five years and made available to the Department upon request. This condition is necessary to ensure compliance with Rules 205 and 225.
12. Applicant shall not operate the asphalt facility at this site for more than two (2) years beyond the issuance date of the permit. Records of the number of years the asphalt plant operates at this site shall be kept on file for a period of at least five years and made available to the Air Quality division upon request. This condition is necessary to ensure compliance with Rule 201.

PRODUCT / PROCESS RESTRICTIONS

13. The applicant shall limit the asphalt mixture to a maximum of 50 percent recycled asphalt product (RAP) material. This condition is necessary to ensure compliance with the emission limits which have been established pursuant to Rule 901.
14. Applicant shall not burn any fuel other than liquid petroleum gas, natural gas or no. 2 fuel oil in the asphalt facility. This condition is necessary to ensure compliance with Rule 205.

15. At the beginning of the paving season and within the first month after startup of the asphalt facility, the applicant shall fine tune the burners for efficient combustions of all fuels burned at the facility. After any malfunction of the hot mix asphalt facility, the applicant shall inspect and tune the burners as necessary to ensure efficient combustion of all fuels burned at the facility. Records of inspection and maintenance activities performed pursuant to this permit condition shall be kept on file for five years and made available to the District Supervisor, Air Quality Division upon request. This condition is necessary to ensure compliance with Rules 205 and 901.
16. Applicant shall conduct all necessary maintenance and make all necessary attempts to keep all components of the manufacturing process equipment in proper operating condition at all times. The owner or operator of the asphalt facility shall maintain a log of all significant maintenance activities conducted and all significant repairs made to the manufacturing process equipment. This information shall be kept on file for five years and made available to the Air Quality Division upon request. This condition is necessary to ensure compliance with Rule 205.

PARTICULATE CONTROL REQUIREMENTS

17. Applicant shall equip and maintain the asphalt facility with a fabric filter collector (baghouse). Maintenance records consistent with the Preventative Maintenance Program for the Baghouse attached as Appendix A shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. This condition is necessary to ensure compliance with Rules 910 and 911.
18. Applicant shall equip and maintain the baghouse with instrumentation to indicate the pressure drop across the fabric filters. This condition is necessary to ensure compliance with Rule 910.
19. Applicant shall not operate the asphalt facility unless the fabric filter collector (baghouse) is installed and operating properly. This condition is necessary to ensure compliance with Rule 910.

FUGITIVE DUST PLAN

20. Applicant shall not operate the asphalt facility unless the Management Plan for the Control of Fugitive Dust for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix B has been implemented and is maintained. This condition is necessary to ensure compliance with Rules 371, 372, and 901.

MISCELLANEOUS REQUIREMENTS

21. The exhaust gases from the asphalt facility shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 48 inches at an exit point not less than 50 feet above ground level. This condition is necessary to ensure compliance with Rule 901.
22. Applicant shall not use any asbestos tailing or asbestos containing waste materials in the asphalt facility pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 61, Subpart M.

RECORDKEEPING AND REPORTING

23. Applicant shall monitor and record the virgin aggregate feed rate and the RAP feed rate to the asphalt facility on a continuous basis in a manner with instrumentation acceptable to the District Supervisor, Air Quality Division. Upon startup, the initial mix design and time shall be recorded. When a new mix design is activated after startup, the time and new aggregate rates shall be recorded. All records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. This condition is necessary to ensure compliance with Rule 901.
24. Applicant shall monitor and record the drum mix temperature and the drum exhaust gas temperature from the asphalt facility on a continuous basis in a manner with instrumentation acceptable to the District Supervisor, Air Quality Division. All records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. This condition is necessary to ensure compliance with Rule 901.
25. Applicant shall keep records of the following items for each calendar day that the asphalt facility is operated:
 - a) The identification, type, and amounts (in gallons or cubic feet) of all fuels combusted.
 - b) Sulfur content (% by weight), specific gravity, and high heating value (HHV) of all fuel oils being combusted.
 - c) Tons of virgin hot mix asphalt produced.
 - d) Tons of hot mix asphalt containing RAP produced, including the average percent of RAP per ton of hot mix asphalt produced containing RAP.
 - e) Total hours of operation.
 - f) The pressure drop across the fabric filters in inches, water gauge.

These records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. This condition is necessary to ensure compliance with Rule 205.

26. Applicant shall keep records of the quantity of RAP used in the hot mix asphalt paving materials each calendar month that the facility is operated. These records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. This condition is necessary to ensure compliance with Rule 205.
27. Applicant shall calculate the actual emission levels for CO, SO₂, NO_x, VOCs, particulate matter, and lead from the asphalt facility based on the most recent calendar year. If stack test results for the permitted asphalt facility exist for any of the aforementioned pollutant, those stack test results may be used to estimate pollutant emissions subject to the approval of the Air Quality Division. In the event that stack test results do not exist for a specific pollutant, the applicable emission factor listed in Table 1 (Attachment B) shall be used to estimate the emissions of a pollutant from the asphalt facility. This condition is necessary to ensure compliance with the emission limits established pursuant to Rule 205.
28. Applicant shall calculate the fugitive dust emissions based on the most recent calendar year. The fugitive dust emissions of particulate matter shall be calculated using the current U.S. Environmental Protection Agency's Compilation of Air Pollutant Emission Factors (AP-42). This condition is necessary to ensure compliance with Rules 371, 372, and 901.

TESTING AND NOTIFICATION

29. The actual emission levels for the pollutants specified in Special Condition Numbers 27 and 28 shall be reported to the Air Quality Division through the annual emission reporting required under Section 5503(k) of the Natural Resources and Environmental Protection Act.
30. At the beginning of the paving season and within 60 days after achieving the maximum production rate, but not later than 180 days after the commencement of trial operation, federal Standards of Performance for New Stationary Sources require verification of particulate emission rates from the hot mix asphalt facility by testing, at owner's expense, in accordance with 40 CFR, Part 60, Subparts A and I. Verification of emission rates includes the submittal of a complete report of the test results. Applicant shall notify the District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR, Part 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 30 days prior to testing, a complete stack testing plan must be submitted to the Air Quality Division. The final plan must be approved by the Air Quality Division prior to testing.
31. Written notification of construction and operation is required to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60.7. This notification shall be submitted to the District Supervisor, Air Quality Division within the time frames specified in 40 CFR, Part 60.7.

APPENDIX A

**Preventative Maintenance
Program for the
BAGHOUSE
Owned by
Valley Asphalt Company
Located at
Bishop International Airport
Flint, Michigan**

The Preventative Maintenance Program for the Baghouse is for the purpose of keeping the baghouse in good operating condition, and thereby, maintaining the rated capture efficiency of the baghouse 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. BAGHOUSE OPERATING PRESSURE DROP.

- a. The pressure drop across the baghouse 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.
- b. The pressure drop across the baghouse 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. BAGHOUSE/PLANT ALARM SYSTEM.

The baghouse 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 BAGHOUSE DUST.

Accumulated baghouse dust (particulate) shall be stored and/or be disposed of in a manner that 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 OF.

In the event visible emissions are observed at the discharge point of the stack, the following actions shall be taken:

If the opacity is greater than 20% or if no certified visible emissions reader can be on-site within 60 minutes of observing the visible emission, 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, regardless of the opacity, an excess emissions report must be made to MDEQ.

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.

7. INVENTORY OF FILTER BAGS.

The facility owner or operator shall maintain an inventory of baghouse filter bags so those 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 baghouse shall be maintained at all times.

8. BAGHOUSE INSPECTION RECORD.

The owner or operator of the facility shall maintain a written record in a bound notebook of the following:

- Visual inspections of the interior components of the baghouse, 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 baghouse, 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 baghouse 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. A visible emission record sheet will be made available in the Daily Operations Log Book.
- All significant maintenance activities performed on the baghouse.

APPENDIX B

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, as necessary, by the application of water, sweeping, vacuuming, or other acceptable dust control agent.
- b. The speed of vehicles on the site will be limited to 10 miles per hour (MPH) 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 hot mix asphalt haul vehicles will travel are paved with Hot Mix Asphalt. This includes the roadway on which the vehicles travel around the process equipment to be loaded with Hot Mix Asphalt paving materials.
- b. During the operating season, when necessary, the paved plant roads shall be treated with water, vacuumed, or swept in a manner that minimizes the introduction of the dust to the ambient air to control fugitive dust emissions and track-out dust.
- c. During the operating season, the unpaved travel surfaces shall be treated with water, or other acceptable dust control agents on a frequency sufficient to meet the visible emission opacity standard of 5% opacity specified in Michigan Act 451, Section 5524.
- 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. RECORD KEEPING.

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 BAGHOUSE.

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

ATTACHMENT B

TABLE 1

<u>Pollutant</u>	<u>lb./ton of HMA produced using Natural Gas</u>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	0.0042
Oxides of Sulfur, RAP mixes	0.0042
Oxides of Nitrogen	0.0275
Carbon Monoxide	0.1980
NMTHC as Carbon (VOC)	0.0340
Lead	2.02 E-6
<u>Pollutant</u>	<u>lb./ton of HMA produced using Liquid Petroleum Gas</u>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	0.0000
Oxides of Sulfur, RAP mixes	0.0000
Oxides of Nitrogen	0.0400
Carbon Monoxide	0.1980
NMTHC as Carbon (VOC)	0.0340
Lead	2.02 E-6
<u>Pollutant</u>	<u>lb./ton of HMA produced using No. 2 Fuel Oil</u>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	0.0560
Oxides of Sulfur, RAP mixes	0.0560
Oxides of Nitrogen	0.1225
Carbon Monoxide	0.0525
NMTHC as Carbon (VOC)	0.0575
Lead	2.02 E-6
<u>Pollutant</u>	<u>lb./ton of HMA produced using No. 4, 5, 6 Fuel Oil and Recycled Used Oil</u>
PM, Baghouse	0.0400
PM, Scrubber	0.0520
Oxides of Sulfur, virgin mixes	$0.0397 \times F \times S^1$
Oxides of Sulfur, RAP mixes ²	$0.0828 \times F \times S^1$
Oxides of Nitrogen	0.1225
Carbon Monoxide	0.2010
NMTHC as Carbon (VOC)	0.0575
Lead	2.02 E-6

¹ F = fuel consumption, gallons/ton HMA produced

S = sulfur content in fuel, %

² This emission factor is valid only for annual average RAP contents up to 30%, calculated as follows:

Annual Average RAP % = Tons of RAP consumed per year / Tons of HMA containing RAP produced/year x 100%

