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ASPHALT PLANT AIR PERMIT GP-13



- **Applicable for MOST Asphalt Plants Throughout the State**
- **Separate Requirements for Philadelphia and Allegheny Counties**
- **Establishes Best Available Technology (BAT) Requirements**



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Best Available Technology (BAT) Examples to Control of Emissions



- i. The drop heights from front-end loaders being used to stockpile, transfer, and load aggregate shall be kept as short as possible to minimize dust emissions.
- ii. Stockpiles shall be kept as compact as possible to limit exposure to the wind. Material shall be stockpiled in such a manner that it may be adequately wetted as necessary to control fugitive emissions.
- iii. All in-plant roads shall be maintained to prevent particulate matter from becoming airborne in accordance with 25 Pa. Code §§ 123.1 and 123.2.
- iv. All unpaved in-plant roads shall be watered once per day during warm weather, at the start of each shift, if no precipitation has fallen within the previous twenty-four (24) hours, and as needed thereafter on a preventative basis such that visible fugitive emissions are controlled in accordance with 25 Pa. Code §§ 123.1 and 123.2. Other methods of dust control may be used when weather conditions make the watering of unpaved roads hazardous.
- v. In accordance with 25 Pa. Code § 123.1(c), the owner or operator shall promptly remove earth or other material from paved roads onto which earth or other material has been transported by trucking or earth moving equipment, or other means.



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Best Available Technology (BAT)

Examples to Control of Emissions

- vi. A set vehicle pattern shall be established and maintained for vehicles entering and exiting the plant.
- vii. The owner or operator shall post a sign limiting speeds to less than 15 mph on all in-plant roads.
- viii. The owner or operator shall post and enforce a requirement stating "All vehicles entering or exiting the plant property shall be properly tarpaulin covered." Vehicles with a gross vehicle weight rating of less than 10,000 pounds shall be exempt from this condition.
- xi. Only HMA plants controlled by an appropriately designed fabric collector (i.e., baghouses capable of complying with all applicable requirements) may apply for this General Permit. A fabric collector ("baghouse") shall be accepted by the Department as "appropriately designed" only if the Department determines it to be based upon the information provided by the owner or operator and on any other information available to the Department.
- xii. No fugitive air contaminant emissions shall be generated as a result of removing collected dust from the baghouse or as a result of subsequently handling the collected dust on-site following its removal from the collector.
- xiii. The owner or operator shall keep sufficient quantity of spare baghouse bags, at a minimum of 10% of the total number of bags, on hand for immediate replacement.



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ASPHALT PLANT AIR PERMIT GP-13

- If you can't meet the conditions of GP-13, can operate under an Individual Permit Approval.
- Most Hot Mix Plants Have Operated Under GP-13 for many years.
- 5-Year Permit Timeframe, Renewal 180 Days Prior to Expiration



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- **Key Items to Keep in Mind Related to Operation Under the Permit**
 - Keep a copy of the General Permit AND the Application available onsite.
 - Maintain and operate plant in accordance with “manufacturer’s specifications”, do not cause air pollution, be consistent with good operating and maintenance practices, no malodors outside of property line.



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- **Key Items to Keep in Mind Related to Operation Under the Permit**
 - Report malfunctions within 24 hours; verbally AND a follow up written report.
 - Annual fees (updated 2021, will update again)
 - WDLF (if used) has specific testing and reporting requirements
 - Performance Testing and Tuning Requirements
 - Reporting Requirements



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AIR PERMIT GP-13 PERFORMANCE TESTING/TUNING

- a. Emissions testing using EPA reference methods shall be conducted one time while the source is burning the worst case fuel to verify compliance with filterable particulate, NO_x, CO and VOCs. An existing HMA plant as described in Condition 14.b. may use an earlier stack test result approved by the Department for demonstration of compliance with this requirement, if it has been tested for the worst case fuel. The new and other plants as described in Condition 14.c. shall be tested for total PM₁₀ and PM_{2.5}.

• Performance Testing 5-Year Intervals

- b. Except for the first year, the owner or operator shall conduct a burner tuning procedure in accordance with the manufacturer's specifications to minimize NO_x and CO emissions each year thereafter. The owner or operator shall conduct each annual tune-up not later than June 15 of each year or within four (4) weeks after each start-up of the HMA plant. An existing HMA plant as described in Condition 14.b of this General Permit may use an earlier stack test result approved by the Department for demonstration of compliance with this requirement, if it has been already tested for the worst case fuel. In such case, conducting a burner tuning procedure in accordance with the manufacturer's specifications will be adequate. The owner or operator shall comply with the following requirements:

• Tuning Annually After First year



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AIR PERMIT GP-13 PERFORMANCE TESTING KEY DATES

- i. Within one hundred eighty (180) days of the commencement of operation of any HMA plant at the respective site, the owner or operator shall perform a source test to establish the baseline emissions of filterable particulate, NO_x, CO and VOCs. The new and other plants as described in Condition 14.c. of this General Permit shall also be tested for total PM₁₀ and PM_{2.5}.
- ii. At least sixty (60) calendar days prior to commencing an emissions testing program required by this General Permit, a test protocol shall be submitted to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office for review and approval. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual. The emissions testing shall not commence prior to receipt of a protocol acceptance letter from the Department.
- iii. At least fifteen (15) calendar days prior to commencing an emissions testing program required by this General Permit, written notification of the date and time of testing shall be provided to the Department's appropriate Regional Office. Notification in writing shall also be sent to the Department's Bureau of Air Quality, Division of Source Testing and Monitoring. The Department is under no obligation to accept the results of any testing performed without adequate advance written notice to the Department of such testing.
- iv. Within fifteen (15) calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring at RA-epstackstesting@state.pa.us and the appropriate Regional Office indicating the completion date of the on-site testing.
- v. A complete test report shall be submitted to the Department no later than sixty (60) calendar days after completion of the on-site testing portion of an emission test program.



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AIR PERMIT GP-13 PERFORMANCE TESTING

xi. The testing shall be performed while the source is operating at a maximum routine operating conditions rate and while producing a typical mix formulation.

- **Timing is Key Factor in Order to Get Production and Worst-Case Fuel Usage to Align with Testing**



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AIR PERMIT GP-13 PERFORMANCE TUNING

- iii. Monitoring records stating the following information shall be kept on site for a minimum of five years and shall be made available to the Department upon request.
- 1.) The date of the tuning procedure;
 - 2.) The name of the servicing company and technician;
 - 3.) The production rate (tons/hr) or load before and after tuning;
 - 4.) The CO and NO_x concentrations (ppmvd) before and after tuning; and
 - 5.) The percent O₂ before and after tuning.

• Indicators of Successful Tuning



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- Operate per the Conditions of the Permit and the BATs OR
 - d. If at any time the Department has reason to believe that the air contaminant emissions from the exhaust of a fabric collector (baghouse) associated with an HMA plant operating under this General Permit are, or may be, in excess of any applicable air contaminant emission limitation, the owner or operator shall conduct such stack tests or source tests requested by the Department to determine the actual air contaminant emission rate. The owner or operator shall perform any such testing in accordance with the applicable provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) as well as in accordance with any additional requirements or conditions established by the Department at the time the owner or operator is notified, in writing, of the need to conduct testing.



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Example Monitoring, Recordkeeping and Reporting Items

16. Monitoring, Recordkeeping and Reporting

- a. The owner or operator shall maintain records including the following:
 - i. Monthly and 12-month rolling total for asphalt production;
 - ii. Daily records shall be made available to the Department upon request;
 - iii. 12-month rolling total for gallons of No. 2 fuel oil, No. 4 fuel oil, WDLF, biodiesel, alternative fuels used;
 - iv. Hours operated while firing each liquid fuel;
 - v. 12-month rolling total for each pollutant listed;
 - vi. Daily baghouse pressure drop reading;
 - vii. Daily stack, fugitive and malodor surveys;
 - viii. Any corrective actions taken to bring facility back into compliance with stack, fugitive, and malodor requirements of this permit; and
 - ix. Records of tune-up and annual portable monitor testing done in accordance with Condition 15.b. of the General Permit.
- b. All logs and required records shall be maintained on site for a minimum of five (5) years and shall be made available to the Department upon request.



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Example Monitoring, Recordkeeping and Reporting Items

5. Recordkeeping Requirements

[25 Pa Code §§127.511, 135.21, 135.5, & 139]

The Permittee shall keep the following records:

(a) Facility

- (1) Operating hours for the Hot Mix Asphalt Drum Plant Unit per rolling 12-month period, calculated monthly.
 - (2) The Permittee shall record all verification that VOC emissions are less than 25 tons per rolling 12-month period.
 - (3) The Permittee shall record all verification that HAP emissions are less than 10 tons of any singular HAP per rolling 12-month period and less than 25 tons of total HAPs per rolling 12-month period.
 - (4) The Permittee shall record all verification that NO_x emissions are less than 25 tons per rolling 12-month period.
 - (5) Records of daily fugitive emissions inspections.
 - (6) Records of water truck and broom truck usage.
- (b) ID# P01 - Hot Mix Asphalt Drum Plant
 - (1) Monthly fuel usage and the manifests documenting the sulfur content of fuel oil.
 - (2) Daily production and percent recycle material records.
 - (c) ID# CD01 - Knockout Box/Baghouse
 - (1) Recorder records of the bag filter's pressure and temperature sensors.
 - (2) Recordings of alarm triggers for the dry solid monitor.
 - (3) Maintenance and inspection records of the bag house.
 - (d) ID# CU01 - Hot Oil Heater
 - (1) Monthly fuel usage and the manifests documenting the sulfur content of fuel oil.
 - (e) The Permittee shall establish and maintain baseline operating records, sampling data concurrent with any emission tests, and any supporting calculations used to determine emissions;
 - (f) Records of the occurrence or duration of each malfunction of operation of the Hot Mix Asphalt Drum Plant;
 - (g) Records of the occurrence, duration, and cause (if known) of each malfunction of air pollution equipment or monitoring equipment used to comply with the restrictions or monitoring provisions of this permit;
 - (h) For monitoring equipment used to comply with the monitoring requirements of this permit, records documenting the completion of installation, calibration checks, and maintenance.



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Questions?



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