

EMISSIONS ACTIVITY CATEGORY FORM ASPHALTIC CONCRETE BATCHING PLANTS

This form is to be completed for each asphaltic concrete batching plant. State/Federal regulations which may apply to asphaltic concrete batching plants are listed in the instructions. Note that there may be other regulations which apply to this emissions unit which are not included in this list.

In addition to this EAC form, to provide a complete application, the completion of other EAC forms including Roadways, Storage Piles, Tanks, and Aggregate Processing may be required.

1. Reason this form is being submitted (Check one)

New Permit Renewal or Modification of Air Permit Number(s) (e.g. P901) _____

2. Maximum Operating Schedule: _____ hours per day; _____ days per year

If the schedule is less than 24 hours/day or 365 days/year, what limits the schedule to less than maximum? See instructions for examples. _____

3. General Asphaltic Concrete Plant Process Data:

a. Identify the type of general asphaltic concrete plant by checking the appropriate box:

- batch hot mix
- continuous hot mix
- dryer-drum hot mix
- batch cold patch (solvent/oil type)
- continuous cold patch (solvent/oil type)
- batch cold patch (emulsifying agent/water type)
- continuous cold patch (emulsifying agent/water type)
- drum mix parallel flow
- drum mix counter flow
- other (describe) _____

b. Is this plant portable? yes no

c. Identify the manufacturer of the asphaltic concrete plant: _____

d. Specify the make or model no.: _____

e. Specify the month/year manufactured: _____

f. Specify the normal dryer operating temperature: _____ °F

g. Specify the maximum plant design production capacity: _____ tons/hour

I. Identify the date of the last stack test: _____(Please attach summary of stack test results.)

4. Material Handling Process Data

a. Indicate each type of loading performed at the facility. Select from the provided list or create an entry if any material handling operation is not on the list. Indicate the type of material loaded using the subject loading type and provide an average moisture content, maximum hourly loading rate in tons per hour, and an expected annual quantity loaded in tons per year. Include the transporting of material from the storage pile to the beginning of the plant.

Type of loading*	Material Loaded	Max. Loaded (tons/year)	Max. Loading Rate (tons/hr)	Average Moisture Content, as Loaded (%)

* Examples: Front-end loader,
 Rake reclaimer to conveyor,
 Bucket well reclaimer to conveyor, or
 Under-pile gravity load-out to conveyor

b. Identify each type and number of conveyors. Indicate the number of conveyors and provide information regarding the type of material transferred.

Type of Conveyor	Number of Conveyors	Material Transferred
Belt Conveyor		
Bucket Elevator		
Vibrating Conveyor		
Pneumatic Conveyor		
Other (describe)		

- c. Identify each type of transfer point by completing the following table. Select from the provided list or create an entry if any transfer point is not on the list. Indicate the number of such points and provide the type of material transferred along with the corresponding maximum transfer rate in tons per hour.

Type of Transfer Point*	Number of Points	Type of Material Handled	Maximum Transfer Rate (tons/hr)

- * Vibrating conveyor loading
 Belt conveyor to belt conveyor
 Belt conveyor loading
 Other (describe) _____
- Hopper loading
 Screw conveyor Loading
 Bucket elevator loading

- d. The purpose of the following tables is to identify control methods for the material handling operation identified above. Table 4.d.i should be completed for material handling processes which utilize water or chemical wet suppression as the control option. Table 4.d.ii should be completed for those material handling processes which utilize an alternative control option, such as enclosure or bag filter. Options for "Control Method" are provided.

For the estimated control efficiency, enter the estimated or tested particulate emission control efficiency for each control method. Particulate emission refers to "total suspended particulate" or particles with a diameter of 30 microns or less. If actual test data are not available, control efficiencies may be estimated from information obtained in Compilation of Air Pollutant Emission Factors, AP-42, Volume I; Ohio EPA's Reasonable Available Control Measures for Fugitive Dust Sources; Control of Open Fugitive Dust Sources, EPA-450/3-88-008 (September, 1988); and others.

Table 4.d.i., Watering or Chemical Wet Suppression as Control Option

Operation (check one)	Material Handled	Control Method	Estimated Control Efficiency(%)	Basis for Efficiency Control

<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point		<input type="checkbox"/> Water <input type="checkbox"/> Chemical		
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point		<input type="checkbox"/> Water <input type="checkbox"/> Chemical		
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point		<input type="checkbox"/> Water <input type="checkbox"/> Chemical		
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point		<input type="checkbox"/> Water <input type="checkbox"/> Chemical		
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point		<input type="checkbox"/> Water <input type="checkbox"/> Chemical		

Table 4.d.ii, Alternative Control Options*

Operation (check one)	Material Handled	Control Method*	Estimated Control Eff.(%)	Basis for Efficiency Control
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point				
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point				
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point				
<input type="checkbox"/> Conveying <input type="checkbox"/> Loading <input type="checkbox"/> Transfer Point				

- * A. Total Enclosure
- B. Partial Enclosure

- C. Total Enclosure with Exhaust to Fabric Filter
- D. Partial Enclosure with Exhaust to Fabric Filter
- E. Other (describe) _____

5. Weigh Hopper Loading Process Data (batch plants):

- a. Specify the number of weigh hoppers: _____
- b. Specify the weigh hopper identification number, the weigh hopper manufacturer, the make or model number, and maximum design loading (tons/hr) for each weigh hopper:

Hopper ID Number	Manufacturer	Model Number	Maximum Loading (tons/hr)

6. Fuel Burned:

- a. Specify the input capacity of the dryer in million btu/hr: _____
- b. Identify with an "x" the type of fuel fired:
 - oil
 - natural gas
 - LPG
 - other (specify) _____
- c. If answer to 6.b is oil, identify with an "x" the type of oil used:
 - no. 2
 - no. 6
 - used oil
 - other (describe) _____
- d. Specify the heat content, sulfur content, the estimated maximum quantity to be used per year, and the quantity to be used per hour (normal amount and maximum amount) for each fuel used.

Fuel	Heat Content Btu/gal	% Sulfur	Maximum used per year	Normal used per year	Maximum per hour
oil <input type="checkbox"/> #2 <input type="checkbox"/> #6 <input type="checkbox"/> used			gal	gal	gal
gas			cu ft	cu ft	cu ft
LPG			gal	gal	gal

Other					
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7. Pug Mill Process Data (batch plants):

- a. Specify the number of mixers: _____
- b. Specify the mixer identification number, the mixer manufacturer, the make or model number, and maximum design loading (tons/hr) for each mixer:

Mixer ID Number	Manufacturer	Model Number	Maximum Loading (tons/hr)

8. Truck Loading Process Data:

- a. Describe the Loading System: _____
- b. Is truck loading process enclosed? yes no
- c. Specify the equipment manufacturer, equipment make or model number, and maximum design loading (tons/hr) for each mixer:

Manufacturer	Model Number	Maximum Loading(tons/hr)
_____	_____	_____

9. Asphaltic Concrete Storage Data:

- a. Specify the number of silos: _____
- b. Specify the silo identification number, the silo manufacturer, and silo storage capacity (tons) for each silo:

Silo ID Number	Manufacturer	Silo Storage (tons)

c. Specify venting of the silo:

Vents directly to the ambient air, uncontrolled

Vented emissions are controlled by a condenser
Complete the following information for the condenser:

Company ID for control equipment: _____

Year installed: _____

Estimated Capture Efficiency: _____%

Overall Control Efficiency: _____%

Basis for Overall Control Efficiency:

Emissions are vented back to the dryer

Other (describe) _____

10. Required Supplemental Information:

- a. In addition to this EAC form, a completed EAC form for asphaltic concrete plants must include any other applicable EAC forms which may include the EAC forms for roadways, storage piles, and storage tanks with a capacity greater than 10,000 gallons.
- b. Air emission modeling must be conducted when the potential emissions of any air toxics exceed 1.0 ton/year. The Ohio EPA Engineering Guide #69 is an excellent reference for air toxics modeling. SCREEN 3 is utilized for toxics monitoring. This program may be downloaded from the internet: <http://www.epa.gov/scram001/tt22.htm>
- c. An asphaltic concrete batch plant may be subject to the New Source Performance Standards, 40 CFR Part 60, Subpart I and Subpart Kb. The effective date of this subpart is July 23, 1984.

The Subpart I standard is provided in terms of grains per dry standard cubic foot. Your potential to emit, in terms of tons per year, must be calculated by converting grains per dry standard cubic foot to pounds per hour; then multiply by the factor of 8760 hours per year; and divide by 2000 pounds per ton to annualize your potential to emit.

INSTRUCTIONS FOR COMPLETION OF THE EMISSIONS ACTIVITY CATEGORY FORM FOR ASPHALTIC CONCRETE BATCHING PLANTS

GENERAL INSTRUCTIONS: Provide complete responses to all applicable questions. If an item does not apply to the emissions unit, write in "Not Applicable" or "NA." If the answer is not known, write in "Not Known" or "NK." If you need assistance in understanding a question after reading the instructions below, contact your Ohio EPA District Office or Local Air Agency for assistance. Submittal of an incomplete application will delay application review and processing. In addition, the application may be returned as incomplete if all applicable questions are not answered appropriately.

APPLICABLE REGULATIONS:

The following State and Federal Regulations may be applicable to asphaltic concrete batching plants. Note that there may be other regulations which apply to this emissions unit which are not included in this list.

Federal: 40 CFR 60, Subpart I (NSPS)

State: Ohio Administrative Code (OAC) 3745-31-02 (Permit to Install)
3745-35-02 (Permit to Operate)
3745-17-07 (Visible Particulate Emissions)
3745-17-08 (Fugitive Dust Emissions)
3745-17-11 (Particulate Matter - Industrial Processes)
3745-18-06 (Sulfur Dioxide Emissions)
3745-21-07 (Organic Materials Emissions)
3745-21-08 (Carbon Monoxide Emissions)
3745-23-06 (Nitrogen Oxide Emissions)

If you would like a copy of these regulations, contact your Ohio EPA District Office or Local Air Agency. State regulations may also be viewed and downloaded from the Ohio EPA web site at <http://www.epa.state.oh.us/dapc/regs/regs.html>. Federal regulations may be viewed and downloaded at <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-C.htm>.

CALCULATING EMISSIONS:

U.S. E.P.A. has developed emission factors for many types of emissions units and published them in a document titled "Compilation of Air Pollutant Emission Factors, AP-42", available from the following web site: <http://www.epa.gov/ttn/chief/ap42/index.html>

Estimation software for storage tanks (TANKS) is available from the following U.S. E.P.A. web site: <http://www.epa.gov/ttn/chief/software/tanks/index.html>

Estimation software for landfills (Landfill Gas Emissions Model) is available from the following U.S. E.P.A. web site: <http://www.epa.gov/ttn/catc/products.html#software>

In addition, manufacturers of some types of emissions units and most types of control equipment develop emissions estimates or have stack test data which you can request.

Stack testing of the emissions may be done.

You may develop your own emission factors by mass balance or other knowledge of your process if you can

quantify inputs and outputs accurately. You may be able to do this on a small scale or over a short period of time if it is not practical during regular production. If you have control equipment, you may be able to quantify the amount of pollution collected over a known time period or production amount. Any emission factor calculation should include a reference to the origin of the emission factor or control efficiency.

SPECIFIC INSTRUCTIONS:

1. Indicate whether this is an application for a new permit or an application for permit renewal. If applying for a permit renewal, provide the 4-character OEPA emissions unit identification number.
2. Provide the maximum number of hours per day and days per year the asphalt plant is expected to operate. The following are examples of why the maximum number of hours per day may be less than 24 or the maximum number of days per year may be less than 365 (this list is not all-inclusive):
 - The facility can only operate during daylight hours.
 - The process can only operate within a certain range of ambient temperatures.
 - The process is limited by another operation (i.e., a bottleneck).
3. Enter the best information that you have for 3.a through 3.i, as well as for 3.l and 3.m. Mark as many types of aggregate that your plant uses for 3.j. In the table for 3.k, list those materials which are applicable to any client's specifications that this plant may use.
4. Instructions are provided in the paragraph which precedes each table in 4.a through 4.d.
5. Enter the best information that you have for 5.a and 5.b.
6. Enter the best information that you have for 6.a and 6.d. Mark as many types of fuel that your plant burns for 6.b and 6.c.
7. Enter the best information that you have for 7.a and 7.b.
8. Provide description in 8.a. An enclosure, for 8.b, would be some device that contains emissions of air pollutants when discharging the finished product asphaltic concrete material into transport vehicles. Enter the best information that you have for your primary mixer in 8.c. If there is more than one mixer, please place an asterisk next to 8.c, and provide the requested information following 10.e on the form.
9. Enter the best information that you have for 9.a and 9.b. Mark the appropriate selection in 9.c.
10. The additional EAC forms which accompany this one must be completed and submitted along with your application, as required in 10.a. To obtain the related EAC forms, contact the Ohio EPA District Office or Local Air Agency which serves the county of your plant's office, or visit the Ohio EPA Division of Air Pollution Control web site at <http://www.epa.state.oh.us/dapc/>

From the home page, enter the topic index, and click on "files to download"

Air emission modeling, if required for your facility, is described in 10.b. For the federal regulations referenced in 10.c, there is a web site listed near the end of the "Applicable Regulations" section, which precedes the "Line-by-Line Instructions" of this document. Access to the federal regulations is also available through your Ohio EPA District Office or Local Air Agency.