COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

BATCH ASPHALT PLANT

Application for Plan Approval to Construct, Modify or Reactivate an Air Contamination Source and/or Air Cleaning Device

Read the instructions carefully before completing this form. Submit duplicate copies.

Section A - Identity and Location of Air Contamination Source

1A. Application is being made for:

- ☐ Construction of New Source
- ☐ Reactivation of a Source
- ☐ Modification of Existing Source
- ☐ Installation of Air Cleaning Device
- ☐ Amendment to a Previous Application

Previous Application No. ___ ___ - ___ ___ ___ - ___ ___ ___

OFFICIAL USE ONLY

Application No. ___ ___ - ___ ___ ___ - ___ ___ ___
Plant Code _____ Unit ID _____
Date Received _____
Reviewed By _____

Potential Emissions (TPY)
PM _____ SO_2 _____ VOC _____
NO_x _____ CO _____ Other _____

Actual Emissions (TPY)
PM _____ SO_2 _____ VOC _____
NO_x _____ CO _____ Other _____

Change in Actual Emissions (+ or -)
PM _____ SO_2 _____ VOC _____
NO_x _____ CO _____ Other _____

1B. Type of source

1C. Plant in which source is located

☐ NEW ☐ EXISTING

1D. If source is new, does it replace another source? ☐ YES ☐ NO (describe source replaced)

1E. Expected date of completion

2A. Owner of source

2B. Employer I.D. No. (Federal IRS No.)

___ ___ - ___ ___ ___ ___ ___ ___ ___

3A. Owners designation of source and/or plant if any

3B. Location of source (Street address or Route No.) Political Subdivision (Township, etc.) County

3C. Mailing address (Street or P.O. Box, City, Zip Code)

3D. Telephone No.

4A. Person to contact regarding this Application (name and title)

4B. Mailing address (Street or P.O. Box, City, State, Zip Code)

4C. Telephone No.

5. Official signing application must be an agent of the Company having primary responsibilities for operation of the facility to which this application applies. Although he may not have participated in the design of the facility he should be responsible for approval of the design.

AFFIDAVIT

I, _____ , being duly sworn according to law depose and say that I am the official having primary responsibility for the design and operation of the facilities to which this application applies and that the information included in the foregoing application is true to the best of my knowledge, information and belief.

Sworn to and subscribed before me this _____ day

of _____ , _____.

_____
Signature

_____
Notary Public

_____
Title

Section B.3 - Batch Asphalt Plant Process Information

1. ASPHALT PLANT

A. Manufacturer of plant	B. Model No.
C. Rated Capacity	
D. Sketch flow diagram of process giving all (gaseous, liquid, and solid) flow rates. (Attach separate sheet).	

2. FUEL REQUIREMENTS AND COMBUSTION AIDS AND / OR CONTROLS

A. TYPE	QUANTITY		SULFUR	BTU CONTENT
	HOURLY	ANNUALLY		
OIL NO. _____	GPH @ 60°F		% (by wt.)	BTU / Gal. & lbs. / Gal. @ 60°F
NATURAL GAS	CFH		gr / 100 SCF	BTU / SCF
B. ☐ DRAFT CONTROLS	Type			
C. ☐ OIL PREHEAT	Temperature (°F)			
D. ☐ ATOMIZATION INTERLOCKING DEVICE				

3. AGGREGATE ROTARY DRYER AND AGGREGATE TYPE

A. Inside diameter (ft.)	B. Length (ft.)	C. Air volume through drier
		_____ ACFM @ _____ °F

D. Type mix (List all types ran at plant)

TYPE	% LIMESTONE	% SAND	% PASSING - 200 mesh	Maximum capacity running this mix

4. AUXILIARY EQUIPMENT CONTROL

A. Cold elevator enclosed? ☐ Yes ☐ No	Type or method
B. Hot elevator enclosed? ☐ Yes ☐ No	Type or method
C. Hot bins enclosed? ☐ Yes ☐ No	Type or method
D. Aggregate discharge points? ☐ Yes ☐ No	Type or method
E. Volume of gases (ACFM @ °F)	F. Dust loading (lbs. / hr.)

Section B.3 - Batch Asphalt Plant Process Information, Continued

5. FUGITIVE DUST CONTROL

A. Storage bins enclosed? ☐ Yes ☐ No	Type or Method
B. Describe fugitive dust control system for loading, handling, etc. operations.	C. Roadway dust control Roadways paved ☐ Yes ☐ No Dust suppressor ☐ Water ☐ Oil ☐ Power Broom Frequency of use of suppressor

6. OPERATING SCHEDULE

_____ hours / day _____ days / week _____ weeks / year

7. SEASONAL PERIODS (MONTHS)

Operating	Non-Operating
_____ to _____	_____ to _____

8. Describe fully the facilities provided to record all operating conditions that may affect the emission of air contaminants. Provide detailed information to show that the facilities provided are adequate.

9. Describe modifications to the asphalt plant in detail.

10. Type and method of disposal of all waste materials generated by this process.
(Is a Solid Waste Permit needed? ☐ Yes ☐ No)

11. Briefly describe method of handling waste water from this process and its associated air pollution control equipment.
(Is a Water Quality Management Permit needed? ☐ Yes ☐ No)

12. Attach any and all additional information necessary to perform a thorough evaluation of the extent and nature of emissions from this process.

Section C - Control Equipment

1. POTENTIAL PROCESS EMISSIONS (OUTLET FROM PROCESS, BEFORE ANY CONTROL EQUIPMENT)

A. Outlet particulate loading (lbs / hr or gr / SCF Dry)

B. Specific gravity of particulate

C. Attach outlet particle size distribution information

D. Specify gaseous contaminants and concentration

Contaminant	*Concentration*
(1)	_____ ppm (Vol.) _____ lbs / hr
(2)	_____ ppm (Vol.) _____ lbs / hr
(3)	_____ ppm (Vol.) _____ lbs / hr

E. Outlet volume of exhaust gases

_____ ACFM

@ _____ °F

2. GAS CONDITIONER (IF APPLICABLE)

A. Water quenching ☐ YES ☐ NO

Water injection rate _____ GPM

B. Radiation and convection cooling ☐ YES ☐ NO

C. Air dilution ☐ YES ☐ NO

_____ CFM

D. Gas conditioner outlet

_____ ACFM @ _____ °F

3. SETTLING CHAMBERS (IF APPLICABLE)

A. Manufacturer

B. Volume of gas handled

_____ ACFM @ _____ °F

C. Gas velocity

D. Dimensions

E. Retention time

F. Describe baffling

G. Inlet concentration (lbs / hr or gr / SCF Dry)

H. Outlet concentration (lbs / hr or gr / SCF Dry)

I. Overall efficiency (%)

J. Water injection

☐ YES ☐ NO

K. Water injection Rate (GPM)

L. Attach particle size Efficiency curve

Section C - Control Equipment, Continued

4. INERTIAL AND CYCLONE COLLECTORS (IF APPLICABLE)

A. Manufacturer	B. Type	C. Model Number
D. Pressure Drop (water gage)	E. Inlet Gas Volume (ACFM)	F. Inlet Gas Temperature (°F)
G. Design inlet volume (ACFM)		
H. Inlet concentration (lbs / hr or gr / SCF Dry)	I. Outlet concentration (lbs / hr or gr / SCF Dry)	J. Overall efficiency (%)
K. Attach particle size efficiency curve	L. Number of individual cyclone(s)	
M. Describe the inertial collector fully giving dimensions and method of operation		

5. CATALYTIC AND THERMAL AFTERBURNERS (IF APPLICABLE)

A. Manufacturer	B. Type	C. Model No.
D. Minimum temperature maintained (°F)	E. Retention time at this temperature (sec)	F. Volume of gases handled (ACFM @ °F)
G. Design inlet volume (ACFM)	H. Number and capacity (Btu / hr) of burners	
I. Catalyst used	J. Expected temperature rise across catalyst	
K. Are temperature sensing devices being provided to measure the temperature rise across the catalyst? ☐ YES ☐ NO		
L. Is a heat exchanger system used for heat recovery? ☐ YES ☐ NO		
M. Inlet concentration ppm (Vol.)	N. Outlet concentration ppm (Vol.)	O. Overall efficiency (%)
P. Demonstrate that this unit is capable of complying with § 123.31 of Chapter 123		

Section C - Control Equipment, Continued

6. FABRIC COLLECTORS (IF APPLICABLE)

A. Manufacturer	B. Model No.
C. Air to cloth ratio (minimum, average, and maximum)	D. Type of Fabric ☐ Felted Material _____ ☐ Woven ☐ Felted-Woven

E. Pressure Drop (Water gage)	F. Volume of gases handled (ACFM)	G. Inlet gas temperature (°F)

H. Design inlet volume (ACFM)

I. Inlet concentration (lbs / hr or gr / SCF Dry)	J. Outlet concentration (lbs / hr or gr / SCF Dry)	K. Overall efficiency (%)

L. No. of compartments	M. No. of bags per compartment

N. Can each compartment be isolated for repairs and / or bag replacement? ☐ YES ☐ NO

O. Bag dimensions
Length _____ Diameter _____

P. Method and frequency of bag cleaning (describe in detail). Give pneumatic flushing pressure if applicable.

Q. Are temperature controls provided: (Describe in detail)

R. Is baghouse insulated	S. Maximum temperature bags can withstand (°F)	T. Dew point at maximum Moisture (°F)

U. Describe method of dust removal from equipment

Section C - Control Equipment, Continued

7. SCRUBBERS (IF APPLICABLE)

A. Manufacturer	B. Type	C. Model No.

D. Pressure drop (water gage) across scrubber only. Do not include duct losses.

E. Gas temperatures (°F)

at inlet _____ outlet _____

F. Volume of gases handled at inlet temperature (ACFM)	G. Design inlet volume (ACFM)

H. Water flow rate (GPM)	I. Scrubber medium

J. Inlet concentration (lbs / hr or gr / SCF Dry)	K. Outlet concentration (lbs / hr or gr / SCF Dry)	L. Overall efficiency (%)

M. Attach particle size efficiency curve

N. Describe equipment provided to measure pressure drop and water flow rate to scrubber

Section C - Control Equipment, Continued

8. ELECTROSTATIC PRECIPITATORS (IF APPLICABLE)

a. Manufacturer	B. Model No.	
C. Pressure drop (water gage)	D. Volume of gases handled (ACFM)	E. Design inlet volume (ACFM)
F. Maximum operating temperature (°F)	G. Retention time (sec)	
H. Linear velocity (ft / sec)	I. Voltage	J. Resistivity of dust collected (ohm-centimeter)
K. Gas distribution grids? ☐ YES ☐ NO	L. ☐ Single stage ☐ Multiple stage	
M. Inlet concentration (lbs / hr or gr / SCF Dry)	N. Outlet concentration (lbs / hr or gr / SCF Dry)	O. Overall efficiency (%)

P. Attach particle size efficiency curve

Q. Method of removing dust from collecting electrodes

R. Describe Method of dust removal from equipment

Section C - Control Equipment, Continued

9. ADSORPTION AND ABSORPTION EQUIPMENT (IF APPLICABLE)

A. Manufacturer	B. Type	C. Model No.
D. Volume of gases handled (ACFM)		E. Inlet temperature (°F)
F. Design inlet volume (ACFM)		G. Pressure drop (water gage)
H. Absorbent or adsorbent	I. Retention time (sec)	
J. Inlet concentration	K. Outlet concentration	L. Overall efficiency (%)
M. Method and frequency of regeneration		
N. Describe absorption or adsorption equipment fully		

10. OTHER CONTROL EQUIPMENT (IF APPLICABLE)

A. Manufacturer	B. Type	C. Model No.
D. Volume of gases handled (ACFM)	E. Design inlet volume (ACFM)	F. Inlet temperature (°F)
G. Inlet concentration (lbs / hr or gr / SCF Dry)	H. Outlet concentration (lbs / hr or gr / SCF Dry)	I. Overall efficiency (%)
J. Attach particle size efficiency curve or other efficiency information		
K. Describe fully giving important parameters and method of operation		

Section C - Control Equipment, Continued

11. COSTS

A. Cost of all control equipment including installation costs (List individual controls separately)

B. Estimated annual operating costs

12. Describe modifications to control equipment in detail

13. Discuss briefly the noise potential of the process and related control equipment and describe andy devices used to reduce noise. Give costs.

14. Attach manufacturer's performance guarantees and / or warranties for each of the major components of the control system (or complete system).

15. Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase the air contaminant emissions. Periodic maintenance reports are to be submitted to the Department.

16. Attach any and all additional information necessary to thoroughly evaluate the control equipment.

Section D - Flue and Air Contaminant Emission Information

1. STACK AND EXHAUSTER

A. Exhauster (attach fan curves)

_____ HP @ _____ RPM

B. Stack height (ft)	C. Stack diameter (ft)	D. Weather Cap
		☐ YES ☐ NO

E. Indicate on an attached sheet the location of sampling ports with respect to exhaust fans, breeching, etc. Give all necessary dimensions.

F. Can the control equipment be bypassed: (If Yes, explain) ☐ YES ☐ NO

2. ATMOSPHERIC EMISSIONS

A. Particulate matter emissions (lbs / hr or gr / SCF Dry)

B. Gaseous contaminant emissions

Contaminants	*Concentration*
(1)	_____ ppm (Vol.) _____ lbs / hr
(2)	_____ ppm (Vol.) _____ lbs / hr
(3)	_____ ppm (Vol.) _____ lbs / hr

C. Outlet volume of exhaust gases

_____ CFM

@ _____ °F

_____ % Moisture

Section E - Miscellaneous Information

1. Describe fully facilities to monitor and record the emission of air contaminants. Provide detailed information to show that the facilities provided are adequate. Include cost and maintenance information. Periodic maintenance reports are to be submitted to the Department.

2. Attach Air Pollution Episode Strategy (if applicable)

3. Briefly describe the general nature of the area in which the source is located.

4. Attach calculations and any additional information necessary to thoroughly evaluate compliance with all the applicable requirements of Article III of the rules and regulations of the Department of Environmental Resources and those requirements promulgated by the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Clean Air Act.

5. List all attachments made to this Application.