PERMIT APPLICATION FOR AIR POLLUTION CONTROL DEVICE
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AIR DIVISION

INSTRUCTIONS FOR COMPLETION OF
PERMIT APPLICATION FOR AIR POLLUTION CONTROL DEVICE
ADEM FORM 110

All air pollution control devices which are connected in series to one process or one group of processes, whether existing or to be constructed, should be described on this form.

All questions which are applicable should be answered. Vendors' equipment specifications may be attached in order to adequately complete this form. If an item does not apply (except for Item 12), type "N/A" in that block.

Item 1:	Self-explanatory
Item 2:	Check all devices which are to be connected to a unit or group of units. For example, if emissions from a foundry cupola are conducted through a gas-fired afterburner, and then a quench chamber, a venturi scrubber, a cyclonic separator, the fan and stack to the atmosphere, check Afterburner, Wet Scrubber, and Other. Write "Venturi" in the space for kind of Wet scrubber and "Quench Chamber" and "Cyclonic Separator" in the space for Other.
Item 3:	Self-explanatory
Item 4:	Self-explanatory
Item 5:	Columns are provided for 3 types of pollutants emitted by a source or sources. In most cases no more than 3 types of pollutants are regulated by the State for a particular type of source. These emission parameters for the control device should coincide with the maximum operating capacity, the greatest emission rate or the most difficult control conditions for the source. The manufacturer may not guarantee every emission parameter, but the Mass Emission Rate Required by Regulation must be stated. The Department must be assured that the owner or operator has a clear understanding of the task required of the equipment.
Item 6:	Outlet conditions should be stated for those conditions within a stack or vent or at the exit to a stack or a vent. Intermediate locations may be labeled by the applicant, such as "After Cyclone" or "Before Scrubber". The velocity should be calculated based upon the actual volumetric flow.
Item 7:	Stack type may be a stack with an unobstructed opening discharging in a vertical, or nearly vertical direction (V), A vertical stack with a weather cap or similar obstruction in the exhaust stream (W), A building roof vent or bin vent (R), A stack discharging in a horizontal, or nearly horizontal direction (H), A stack discharging downward, or nearly downward (D), An area or volume source not considered a fugitive (A), A process vent, not otherwise classified (P) or Fugitive emissions where no stack exists (F). UTM Coordinates for Alabama, N-S is between 3337.000km-3875.000km and E-W is between 362.000km-709.000km; Zone 16) and GEP Stack Height, which means *Good Engineering Practice (GEP)* stack height as defined in ADEM Administrative Code r. 335-3-14-.03(2)(a)5., 335-3-15-.02(9)(a)5., or 335-3-16-.02(10)(a)5., as applicable, should only be used if a GEP analysis has been performed or if the stack is a grandfathered stack, thus yielding a GEP stack height equivalent to “Height above grade.” Standard temperature is 68°F; standard pressure is 29.92 inches of Hg. Volume of gas discharged can be calculated with the gas velocity (FPS) and stack diameter (Ft).
Item 8:	A clear diagram must be presented, especially for proposed control systems with many elements. Additional sheets may be used, if necessary.
Item 9:	Including further details with the initial application will help to expedite the issuance of a permit. Certain details may be required by the Department in order to conduct a valid review of a proposed system.
Item 10:	Unusual features, such as fluidized beds, turning vanes, new designs, etc. should be illustrated here.
Item 11:	Any pertinent facts not requested elsewhere are to be listed here for most devices. A number of operating parameters will be desired for complex or unusual devices, such as electrostatic precipitators, baghouses and adsorbers.
Item 12:	This item must be completed. Give conditions under which the by-pass will be used. If no by-pass is to be installed, type "There will be no by-pass".
Item 13:	Space is provided for two types of solid waste and two types of liquid waste. Attach additional sheets, if necessary. Volume of solid waste should be stated in pounds per day or tons per week. Volume of liquid waste should be stated in gallons per day.

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Do not write in this space

1. Name of facility or organization _____

2. Type of pollution control device: (if more than one, check each; however, separate forms are to be submitted for each specific device.)

- ☐ Settling chamber
- ☐ Electrostatic precipitator
- ☐ Afterburner
- ☐ Baghouse
- ☐ Cyclone
- ☐ Multiclone
- ☐ Absorber
- ☐ Adsorber
- ☐ Condenser
- ☐ Wet Suppression
- ☐ Thermal Oxidizer
- ☐ Wet scrubber (kind): _____
- ☐ Other (describe): _____

3. Control device manufacturer's information:

Name of manufacturer _____ Model No. _____

4. Emission source(s) to which device is installed or is to be installed:

_____

5. Emission parameters:

	Pollutants Removed		
	Pollutant #1	Pollutant #2	Pollutant #3
Mass emission rate (#/hr)			
Uncontrolled			
Designed.....			
Manufacturer's guaranteed			
Mass emission rate (Expressed as units of standard)			
Required by regulation.....			
Manufacturer's guaranteed			
Removal efficiency (%)			
Designed.....			
Manufacturer's guaranteed			

6. Gas conditions:

	Inlet	Intermediate Locations	Outlet
Volume (SDCFM, 68ºf, 29.92" hg)			
(ACFM, existing conditions)			
Temperature (ºF)			
Velocity (ft/sec)			
Percent moisture			

Pressure drop across device: _____ (inches H_20)

7. Stack dimensions:

Stack No. & Description: ..... Stack Type: _____

Stack UTM Coordinate (E-W) _____ (km) Stack UTM Coordinate (N-S) _____ (km)

Latitude _____ (LAT) Longitude _____ (LONG)

Height above grade _____ (ft) Gas temperature at exit _____ (ºF)

Inside diameter at exit (round) _____ (ft) Gas Velocity _____ (ft/Sec)

Inside area at exit (not round) _____ (ft^2) Volume of gas discharged _____ (ACFM)

Base Elevation _____ (ft) GEP Stack Height _____ (ft)

Are sampling ports available? (If "yes", describe. Draw on separate sheet if necessary) ☐Yes ☐No :

Is this a merged stack (do multiple units use this release point)? ☐Yes ☐No

If yes, provide units:

8. Provide a flow diagram which includes gas exit from process, each control device, location of by-pass, fan or blower, each emission point, exits for collected pollutants, and location of sampling ports.

9. Enclosed are:

☐Blueprints ☐Particle size distribution report

☐Manufacturer's literature ☐Size efficiency- curves

☐Emissions test of existing installation ☐Fan curves

☐Other _____

10. If the pollution control device is of unusual design, please provide a sketch of the device.

11. List below the important operating parameters for the device. (For example: air/cloth ratio and fabric type, weight, and weave for baghouse; throat velocity and water use rate for a venturi scrubber; etc.)

12. By-pass (if any) is to be used and when:

13. Disposal of collected air pollutants:

	Solid waste	Solid waste	Liquid waste	Liquid waste
Volume				
Composition				
Is waste hazardous?				
Method of disposal				
Final destination				

If collected air pollutants are recycled, describe:

Name of person preparing application:

Company of preparer

Signature: Date: