AIR POLLUTION CONTROL EQUIPMENT DATA – INERTIAL SEPARATORS

FORM E105 07/2001

•	Name of Company: As shown on Line 1 of Form E001					
	Equipment Name: As shown on Line 10 of Form E001					
.	Equipment Data:					
	Single Cyclone Multiple Cyclone Settling Chamber					
	Long-Cone Cyclone Dynamic Precipitator (dry) Other:					
	Manufacturer of Inertia Separator:					
	Model Number: Cost of Equipment:					
	Date of Manufacture: Date of Installation:					
	Additional Control Equipment: Yes No					
	If yes, what type:					
	File applicable form for control equipment					
ļ.	Equipment Design: (For Cyclones Only)					
	Volume of gas discharged from inertial separator at dry standard conditions: dscfm					
	Equipment Dimensions A. Major Cylinder Diameter (D _c): Ft E. Gas Outlet Length (H _c +S _c): Ft					
	B. Major Cylinder Length (Lc): Ft F. Gas Inlet Height (Hc): Ft					
	C. Cone Length (Z_c) : D. Gas Outlet Diameter (D_e) : Ft G. Gas Inlet Width (B_c) : Ft H. Dust Outlet (J_c) : Ft					
	D. Gas Outlet Diameter (D _e): Ft H. Dust Outlet (J _c): Ft					
	I. Gas Inlet Design: Tangential Helical Axial Involute					
	Other:					
	J. For multiple cyclone, give the number of small cyclones:					
i.	Inlet Gas Properties:					
	A. Inlet Gas Temperature (T_i): °F F. Inlet Gas Density* (ρ_g): Lbs/ft ³					
	B. Inlet Gas Pressure (P _i): In. H ₂ O G. Inlet Gas Viscosity (μ): Lbs/ft-sec					
	C. Inlet Gas Velocity (V _i): Ft/sec H. Moisture in Gas Stream: %					
	D. Area of Inlet (A _i): Ft ² E. Effective number of turns in cyclone (N _e):					
	2. Entertier named of tails in eyelone (1.6).					
j.	Pressure Drop Across Inertial Separator:					
	Stated by Manufacturer: In. H ₂ O Measured (actual): In. H ₂ O					

^{*}The density of air at 70°F and a barometric pressure of 29.92 inches Hg is 0.075 lbs/ft³.

 A. Particle Type(s): B. Inlet Particle Concentration (C_p): C. Physical Properties of Particles (check all that apply): 						
☐Powder-like ☐Coarse ☐Abrasive ☐Wet ☐Dry ☐Tacky						
Extremely Sticky Sawdust Pine Sander Dust Wood Chips Fiberous						
☐Metallic ☐Rock ☐Glass ☐Silica (sand) ☐Vinyl, plastic, rubber						
Hygroscopic Other:	_ ,, _					
D. Particle Size Distribution in microns (μ): Size 0-5 μ 5-10 μ 10-20 μ 10-44 μ Great	ton then AAu					
Give % % % %	ter than 44µ %					
by wt.						
E. Particle Cut Size $(D_p)_{cut}$: microns F. Mean Particle Size $(D_p)_{mean}$: microns						
. Component Information:						
Indicate which of the following are components of this inertial separator A. Flow rate instrumentation Inlet gas instrumentation						
☐Differential pressure instrumentation ☐Wear resistan	nt shields					
B. Additional Cyclone Information Stainless steel construction No Cone Ho						
☐Baffles installed on the axis near the dust outlet						
9. Equipment Operation:						
A. Operation of Inertial Separator: Continuous	☐Intermittent					
B. Volume of Inertial Separator: Ft ³						
C. Dimensions of Inertial Separator: Height: Width: Ft Length: Ft						
D. Type of Waste Discharge: Axial Peripher	ral					
E. Dust Disposal Method: Single Closed Drum	Screw Conveyor					
☐Waste Hoppers ☐Rotary Star Valve (motor)	Double-lock Valve					
Spherical Segment Valve Other (Describe):						
E Hanne an americal	Is material wetted? Yes No					
F. Hoppers are emptied every Hours.						
G. Name of commercial disposal company (if applicable):						

).	Control Efficiency:				
	Manufacturer's stated efficiency: Required efficiency:		% %		
	Actual Efficiency (performance testing): %				
	Efficiency for Particle Size: Size 0-5μ 5-10μ 10-20μ	20-44μ	Greater than 44µ	\neg	
	Give % % % % % % %		%		
11.	Fan Data:				
	Location of Fan (check one):				
	Fan Design (check one: a, b, or c):				
	Fan Type		Bla	ade Type	
	a. Cintrifugal (Radial Flow)		Forward Curve Straight	Backward Curve Propeller	
	b. Axial Flow		☐Tube-axial	☐Vane-axial	
	Fan Data: Diameter: Speed: Volume: Static Pressure:	In. RPM Cfm @ S7 In. WC	Braking Horsepower: Inlet Area: Outlet Area: Motor Horsepower:	BHP Ft² Ft² HP	
	Standard		☐Heavy Duty		
	Submitted copies of manufacture's multi-rating tables?				
	c. Compressor Positive Displacement Dynamic Reciprocating				
	This is to certify that I am familiar with the operations concerning this equipment and that the information provided on this application is true and complete to the best of my knowledge. This form must be completely filled out before it will be acceptable.				
	Mail to: CHATTANOOGA-HAMILTON COUNTY AIR POLLUTION CONTROL BUREAU		Company Official:		
	6125 Preservation Drive Chattanooga, TN 37416				
٠	DO.	NOT WRITE	BELOW THIS LINE		
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	Engineer Approval This form co	rresponds to p	ermit number:		
e)C	cial Notations:				