## AIR POLLUTION CONTROL EQUIPMENT DATA - INERTIAL SEPARATORS

1.	Name of Company:								
	As shown on Line 1 of Form E001								
2.	Equipment Name:								
	As shown on Line 10 of Form E001								
3.	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 yos, what type:									
	File applicable form for control equipment								
4.	Equipment Design: (For Cyclones Only)								
	Volume of gas discharged from inertial separator at dry standard conditions:								
	Equipment Dimensions								
	A.Major Cylinder Dianeter ( $D_c$ ).FtE.Gas Outlet Length ( $H_c$ + $S_c$ ).FtB.Major Cylinder Length ( $L_c$ ):FtF.Gas Inlet Height ( $H_c$ ):Ft								
	C. Cone Length ( $Z_c$ ): Ft G. Gas Inlet Width ( $B_c$ ): Ft								
	D. Gas Outlet Diameter ( $D_e$ ): Ft H. Dust Outlet ( $J_c$ ): Ft								
	I. Gas Inlet Design:  Tangential Helical Axial Involute								
	Other:								
	I For multiple cyclone, give the number of small cyclones:								
5.	Inlet Gas Properties:								
	$\mathbf{A} = \mathbf{E} = \mathbf{E} = \mathbf{E} + \mathbf{E} = \mathbf{E} + \mathbf{E} = \mathbf{E} + \mathbf{E} + \mathbf{E} = \mathbf{E} + $								
	A. Inlet Gas Temperature (1): F F. Inlet Gas Density* ( $\rho_g$ ): L05/It <sup>o</sup> B. Inlet Gas Pressure (P.): In H <sub>2</sub> O G. Inlet Gas Viscosity (II): Lbs/ft-sec								
	C. Inlet Gas Viscosity ( $V_i$ ): Ft/sec H. Moisture in Gas Stream: %								
	D. Area of Inlet (A <sub>i</sub> ): $Ft^2$								
	E. Effective number of turns in cyclone (N <sub>e</sub> ):								
l									
6.	Pressure Drop Across Inertial Separator:								
	Stated by Manufacturer:       In. H <sub>2</sub> O       Measured (actual):       In. H <sub>2</sub> O								

\*The density of air at 70°F and a barometric pressure of 29.92 inches Hg is 0.075 lbs/ft<sup>3</sup>.

7.	Particle I	Properties:								
	А.	Particle Type(s):								
	B. C	Inlet Particle Concentration (C <sub>p</sub> ):								
	C.									
		□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 Greater than 44μ								
		by wt. % % % %								
E. Particle Cut Size (D <sub>p</sub> ) <sub>cut</sub> : microns										
	F. Mean Particle Size (D <sub>p</sub> ) <sub>mean</sub> : microns									
8	Compone	ant Information:								
0.	Compone									
	Indicate v A.	of the following are components of this inertial separator (check all that apply): low rate instrumentation Inlet gas instrumentation Water spray								
		Differential pressure instrumentation Wear resistant shields Corrosion-resistant linings								
	B	Additional Cyclone Information								
	D.	Stainless steel construction No Cone Horizontal Cyclone Refractory lined								
		Baffles installed on the axis near the dust outlet								
9.	Equipme	nt Operation:								
	А.	Operation of Inertial Separator:								
	В.	Volume of Inertial Separator: Ft <sup>3</sup>								
	C.	Dimensions of Inertial Separator:       Height:       Ft       Length:       Ft         Width:       Ft       Ft       Ft       Ft								
	D.	Type of Waste Discharge: Axial Peripheral								
	E.	Dust Disposal Method: Single Closed Drum Screw Conveyor								
		Waste Hoppers   Rotary Star Valve (motor)   Double-lock Valve								
		Spherical Segment Valve Other (Describe):								
	F.	Hoppers are emptied every Hours. Is material wetted?YesNo								
G. Name of commercial disposal company (if applicable):										
	H.	Site of disposal:								
		·								

10.	Control Efficiency:									
	Manufacturer's stated efficiency						%			
	Required efficiency.									
	Actual Efficiency (performance testing)						<u>%</u>			
	Efficiency for Particle Size:					/0				
	Size	0-5µ	5-10μ	10-20µ	20-44µ		Greater than 44µ			
	Give % by wt.	%	%	%	%		%			
11.	Fan Data:									
	Location of Fan (check one): Clean air side (pull through) Dirty air side (push through)									
	Fan Design (check one: a, b, or c):									
		]	Fan Type				Blade Type			
	a.	Cintrif	ugal (Radia	al Flow)			Forward Curve Backward Curve			
	b.	Flow				Tube-axial				
	Fan Data	:			Ŧ					
	Dia	meter:			In.		Braking Horsepower: BHP			
	Spe			<u></u>						
	Stat	:		In. WC	IP	Motor Horsepower:				
		Standa	ırd			Heavy Duty				
	Submitted copies of manufacture's multi-rating tables?									
	Special Materials of Construction: Bronze Alloys Aluminum Stainless Steel									
	Bisonite Zinc Chromate Primer Rubber, Phenolics, Vinyls, or Epoxy Coverings									
	c. Compressor Positive D					mer	ent 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: CHATTANOOO	FON COUN	TY	Company Official:						
	AIR POLLUTION CONTROL BUREAU 2034 Hamilton Place Blvd. Suite 300 Chattanooga, TN 37421				Title: Date:					
				DO N	<u>OT WRITE</u>	E BI	ELOW THIS LINE			
	Engineer	Approval	This	form corr	esponds to j	peri	mit number:			
Spec	cial Notations:									
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