## **Attachment M Air Pollution Control Device Sheet**

(ELECTROSTATIC PRECIPITATOR)

Control Device ID No. (must match Emission Units Table):

## **Equipment Information**

1. Manufacturer:		2. Type: ☐ Wet ☐ Dry ☐ Single-stage		
Model No.		☐ Single-stage		
3. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.				
. Guaranteed collection efficiency:		5. Type of particulate controlled:		
Minimum:				
(	Gas Stream C	haracteristics		
6. Particulate which will be emitted from outlet of precip		itator: grains	s/ACF	
		lb/hr		
7. Gas flow rate into collector:		8. Gas Stream Temperature:		
Design maximum: acfm at	°F	Inlet:	°F	
Average expected: acfm at	°F	Outlet:	°F	
9. Pressure Drop:	in. H₂O	10. Particulate Grain Loading in grains/scf.:		
		Inlet:	°F	
11. Gas velocity through precipitator:	ft/sec	Outlet:	°F	
12. Percent moisture of gas stream:		13. Water vapor content of effluent stream:		
Maximum: % Typical:	%	lb wate	/lb dry air	
14. Density of gas stream:	lb/ACF	15. Viscosity of gas stream:	lb/sec-ft	
16. Fan requirements:	HP	17. Gas stream residence time or treatment t	me:	
	ft <sup>3</sup> /min		sec.	
<ul><li>18. Particulate to be collected:</li><li>Type:</li></ul>		<ol><li>Value of drift velocity, w, used for a par diameter of one micron:</li></ol>	icle with a	
Resistivity:	ohm-cm		ft/sec	
20. What equation was used to determine to	theoretical effi	ciency? Write the equation below:		
20. What equation was used to determine theoretical efficiency? Write the equation below:				
21. Dimensions of stack: Diameter		ft Height	ft	
Precipitator Characteristics				
22. Collecting electrodes:		23. Discharge electrodes:		
Type of collecting electrodes: ☐ Vee plate		Type of discharge electrodes:		
Opzel plate		Number:		
Other, specify		Effective length of each electrode:	ft	
Number:	_	Wire spacing in direction of gas flow:	ft	
Vertical height:	ft	24. Spacing between collecting and	discharge	
Total area of active collecting surface:	ft <sup>2</sup>	electrodes:	ft	

Page 1 of 3 Revision 03/15/2007

25. Collecting rappers:	26. Discharge rappers:			
Type of rappers:	Type of rappers:			
Number of rappers:	Number of rappers:			
Time interval between raps of the same rappers:	Time interval between raps of the same rappers:			
sec	se	C		
Total time for one complete rapping cycle:	Total time for one complete rapping cycle:			
sec	se	C		
27. Plate cleaning system: Rapping Water spray washing Other, specify				
28. Sectionalization and power requirements:				
Number of fields:	Current density on wires: ma	A/ft		
Number of bus sections:	Total power requirements: kV	٧		
Total:	Field strengths:			
	Charging: KV/i	n		
In series:	Collecting: KV/i	n		
In parallel:	Sparking Voltage: volts	3		
Number of gas passages:	Sparking rate (optimum): no./s	sec		
Cross-sectional area per gas passages: ft <sup>2</sup>	Proposed power supply:			
Applied voltage (peak): volts	Type rectifiers:			
, , , , , , , , , , , , , , , , , , ,	Number of Transformers:			
How would the loss of one field affect the performance of the precipitator?				

## **Particle Distribution**

29. Complete the table:	Particle Size Distribution at Inlet to Collector	Fraction Efficiency of Collector
Particulate Size Range (microns)	Weight % for Size Range	Weight % for Size Range
0 – 2		
2 – 4		
4 – 6		
6 – 8		
8 – 10		
10 – 12		
12 – 16		
16 – 20		
20 – 30		
30 – 40		
40 – 50		
50 – 60		
60 – 70		
70 – 80		
80 – 90	_	
90 – 100		
>100		

30. Supply curve showing the expected collection efficiency versus content of coal burned over a range of 0.4% to 5% sulfur (if applicable).				
31. Supply curve showing the collection efficiency versus gas volume from 90 to 130 percent of design rating of precipitator.				
32. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):				
33. Describe the collection material disposal system:				
34. Have you included Sheet?	d Electrostatic Precipitator Co	ntrol Device in the Emissions Points Data Summary		
35. Proposed Monitoring, Recordkeeping, Reporting, and Testing  Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.  MONITORING:  RECORDKEEPING:				
REPORTING:		TESTING:		
MONITORING:	Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.			
RECORDKEEPING: REPORTING:	Please describe the proposed recordkeeping that will accompany the monitoring.  Please describe any proposed emissions testing for this process equipment on air			
TESTING:	pollution control device.  Please describe any proposed emissions testing for this process equipment on air pollution control device.			
36. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.				
37. Manufacturer's Guaranteed Control Efficiency for each air pollutant.				
38. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.				