

Attachment M
Air Pollution Control Device Sheet
(MECHANICAL COLLECTOR-CYCLONE)

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

Equipment Information

1. Manufacturer: Model No.	2. Method: ☐ Wet ☐ Dry ☐ Single-stage ☐ Multiple: number ☐ In series: number
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.	
4. Provide a diagram of the proposed simple cyclone or multicyclone system with examples of the parameters identified below:	
5. Simple cyclone system (show units): Major cylinder diameter: in. Major cylinder length: in. Cone length: in. Gas outlet diameter: in. Gas outlet length: in. Gas inlet height: in. Gas inlet weight: in. Dust outlet diameter: in. Pressure drop across the cyclone: in. H ₂ O Describe the collected dust discharge valves and system:	6. Multicyclone system (show units): Major cylinder diameter: in. Major cylinder length: in. Cone length: in. Gas outlet diameter: in. Gas outlet length: in. Gas inlet height: in. Gas inlet weight: in. Dust outlet diameter: in. Pressure drop across the system: in. H ₂ O Number of tubes: Tube diameter: in. Tube length: in. Describe the collected dust discharge valves and system:
7. More than one cyclone: Number of cyclones: Arrangement: ☐ Parallel ☐ Series Pressure drop across the system: in. H ₂ O	8. On a separate sheet answer the following questions for each cyclone and attach: Major cylinder diameter: in. Major cylinder length: in. Cone length: in. Gas outlet diameter: in. Gas outlet length: in. Describe the collected dust discharge valves and systems:
9. Guaranteed collection efficiency: Minimum: %	10. Efficiency of cyclone: At design maximum: % At average Operation: %
11. Method of handling material removed:	

Gas Stream Characteristics

12. Particle characteristics (for particulate matter):			
Type of material:	Particulate matter inlet rate to device: lb/hr		
Particle density:	grains/ACF		
Emission rate at collector outlet:	lb/hr		
grains/ACF			
13. Total flow rate:		14. Gas Stream Temperature:	
Design maximum:	acfm	Inlet:	°F
Average expected:	acfm	Outlet:	°F
15. Gas flow rate into collector:		acfm at	°F and PSIA
16. Viscosity of gas stream at the above temperature and pressure: lb/sec-ft			
17. Inlet gas velocity:		18. Particulate Grain Loading in grains/scf:	
ft/sec		Inlet:	
		Outlet:	
19. Supply a curve showing particulate collection efficiency versus gas volume from 25 to 100 percent of design rating of collector.			

Particulate Distribution

20. 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		

21. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):	
22. Describe the collection material disposal system:	
23. Have you included <i>Mechanical Collector (Cyclone) Control Device</i> in the Emissions Points Data Summary Sheet?	
24. 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:	Please describe the proposed recordkeeping that will accompany the monitoring.
REPORTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.
TESTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.
25. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.	
26. Manufacturer's Guaranteed Control Efficiency for each air pollutant.	
27. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.	