

Note: This is a reference cited in *AP 42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

AP42 Section:	9.7
Background Chapter	4
Reference:	13
Title:	Elbow Enterprises--PM-10 and Total Particulate Testing, Lint Cleaner and Dryer #1 Cyclones, AIRx Testing, Ventura, CA, November 7-8, 1994.

Filename: F:\PRIVATE\BRI\AP42\COTTON\COTTON13.WQ1

ELBOW ENTERPRISES - Nov. 7-8, 1994
VISALIA, CA

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
1	Stack temperature	Deg F	112.3	114.3	120.7	
DRYER #1 CYCLONE (1 of 3)	Pressure	in. HG	29.64	29.64	29.64	
	Moisture	%	1.2	0	0	
	Oxygen	%	20.9	20.9	20.9	
	Volumetric flow, actual	acfm	5802	5730	6247	
	Volumetric flow, standard*	dscfm	5160	5140	5542	
	Isokinetic variation	%	98.98	98.74	103.54	
Circle: Production or feed rate Capacity:		bales/hr	41	40.5	31.2	
Pollutant concentrations:						
	Total PM	G/dscf	0.0893	0.0817	0.0720	
	PM-10	% OF TOTAL	30.20%	20.10%	37.90%	
Pollutant mass flux rates:						
	Total PM	lb/hr	3.95	3.60	3.42	3.656
	PM-10	lb/hr	1.19	0.723	1.30	1.07
Emission factors (ENGLISH UNITS):						AVERAGE
	Total PM	lb/bale	0.0963	0.0889	0.110	0.0983
	PM-10	lb/bale	0.0291	0.0179	0.0415	0.0295
Emission factors (METRIC UNITS):						AVERAGE
	Filterable PM	kg/bale	0.0437	0.0403	0.0497	0.0446
	PM-10	kg/bale	0.0132	0.0081	0.0188	0.0134

*DSCFM BASED ON A STANDARD TEMPERATURE OF 60 DEGREES FAHRENHEIT

TO OBTAIN TOTAL PROCESS EMISSION FACTORS, MULTIPLY THE CALCULATED EMISSION FACTORS BY THE TOTAL NUMBER OF PROCESS CYCLONES (3)

Source	Emission factors (ENGLISH UNITS):					AVERAGE
DRYER #1	Total PM	lb/bale	0.289	0.267	0.329	0.295
	PM-10	lb/bale	0.0873	0.0536	0.125	0.0885

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
1	Stack temperature	Deg F	71.8	81.1	82.6	
LINT CLEANER CYCLONE (1 of 12)	Pressure	in. HG	29.72	29.72	29.72	
	Moisture	%	0.956	0.93	0.134	
	Oxygen	%	20.9	20.9	20.9	
	Volumetric flow, actual	acfm	10305	10533	10564	
	Volumetric flow, standard*	dscfm	9913	9961	10043	
	Isokinetic variation	%	94.5	95.2	92.7	
Circle: Production or feed rate Capacity:		bales/hr	42.7	38.2	42.6	
Pollutant concentrations:						
Total PM		G/dscf	0.0155	0.0172	0.0145	
PM-10		% OF TOTAL	28.40%	26.90%	27.70%	
Pollutant mass flux rates:						
Total PM		lb/hr	1.32	1.47	1.25	1.345
PM-10		lb/hr	0.374	0.395	0.346	0.372
Emission factors (ENGLISH UNITS):						AVERAGE
Total PM		lb/bale	0.0308	0.0384	0.0293	0.0329
PM-10		lb/bale	0.00876	0.0103	0.00812	0.00907
Emission factors (METRIC UNITS):						AVERAGE
Filterable PM		kg/bale	0.0140	0.0174	0.0133	0.0149
PM-10		kg/bale	0.0040	0.0047	0.0037	0.0041

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TO OBTAIN TOTAL PROCESS EMISSION FACTORS, MULTIPLY THE CALCULATED EMISSION FACTORS BY THE TOTAL NUMBER OF PROCESS CYCLONES (12)

Source	Emission factors (ENGLISH UNITS):					AVERAGE
LINT	Total PM	lb/bale	0.370	0.461	0.352	0.394
CLEANER	PM-10	lb/bale	0.105	0.124	0.0974	0.109