AP42 Section:	9.7
Background Chapter	4
Reference:	15
Title:	Alta Vista Gin--PM-10 and Total Particulate Testing, Battery Condenser, Lint Cleaner, & Motes Trash Cyclones, AIRx Testing, Ventura, CA, November 3-4, 1994.

SECTION 4
REF 15

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ALTA VISTA GIN - NOV. 3 & 4, 1994

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	76.5	74.7	70.3	
BATTERY	Pressure	in. HG	29.65	29.65	29.65	
CONDENSE	Moisture	%	0	0.102	0.072	
CYCLONE	Oxygen	%	20.9	20.9	20.9	
(1 OF 2)	Volumetric flow, actual	acfm	7522	8285	8295	
	Volumetric flow, standard*	dscfm	7225	7976	8054	
	Isokinetic variation	%	101.59	96.02	101.77	
Circle: Production or feed rate Capacity:		bales/hr	23.3	22.3	23.6	
	Pollutant concentrations:					
	Total PM--reported	g	0.0044	0.0045	0.0065	
	Total PM--actual**	g	0.0053	0.0045	0.0068	
	Total PM--reported	G/dscf	0.0020	0.0019	0.0026	
	Total PM--actual	G/dscf	0.0024	0.0019	0.0027	
	PM-10	% OF TOTAL	69.5%	25.6%	75.1%	
	Pollutant mass flux rates:					
	Total PM	lb/hr	0.15	0.13	0.19	0.16
	PM-10	lb/hr	0.10	0.033	0.14	0.093
	Emission factors (ENGLISH UNITS):					AVERAGE
	Total PM	lb/bale	0.0064	0.0058	0.0080	0.0067
	PM-10	lb/bale	0.0045	0.0015	0.0060	0.0040
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/bale	0.0029	0.0026	0.0036	0.0031
	PM-10	kg/bale	0.0020	0.0007	0.0027	0.0018

*DSCFM BASED ON A STANDARD TEMPERATURE OF 60 DEGREES FAHRENHEIT

**Actual grams does not include negative impinger catches in the calculation of the total PM catch.

TO OBTAIN TOTAL PROCESS EMISSION FACTORS, MULTIPLY THE CALCULATED EMISSION FACTORS BY THE TOTAL NUMBER OF PROCESS CYCLONES (2)

Source	Emission factors (ENGLISH UNITS):					AVERAGE
BATTERY	Total PM	lb/bale	0.013	0.012	0.016	0.013
CONDENSE	PM-10	lb/bale	0.0089	0.0030	0.012	0.0079

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ALTA VISTA GIN - NOV. 3 & 4, 1994

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
2	Stack temperature	Deg F	49.9	62.8	67.9	
MOTES CYCLONE (1 OF 3)	Pressure	in. HG	29.82	29.85	29.85	
	Moisture	%	0.837	0.26	0	
	Oxygen	%	20.9	20.9	20.9	
	Volumetric flow, actual	acfm	3805	3847	3662	
	Volumetric flow, standard*	dscfm	3835	3808	3599	
	Isokinetic variation	%	91.07	101.99	105.69	
Circle: Production or feed rate Capacity:		bales/hr	22.4	23.6	23.2	
	Pollutant concentrations:					
	Total PM--reported	g	0.0836	0.0710	0.0682	
	Total PM--actual**	g	0.0836	0.0719	0.0702	
	Total PM--reported	G/dscf	0.0304	0.0267	0.0262	
	Total PM--actual	G/dscf	0.0304	0.0270	0.0270	
	PM-10	% OF TOTAL	48.3%	65.8%	49.2%	
	Pollutant mass flux rates:					
	Total PM	lb/hr	1.00	0.88	0.83	0.905
	PM-10	lb/hr	0.483	0.581	0.41	0.491
	Emission factors (ENGLISH UNITS):					AVERAGE
	Total PM	lb/bale	0.045	0.037	0.036	0.039
	PM-10	lb/bale	0.022	0.025	0.018	0.021
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/bale	0.020	0.017	0.016	0.018
	PM-10	kg/bale	0.0098	0.011	0.0080	0.0096

*DSCFM BASED ON A STANDARD TEMPERATURE OF 60 DEGREES FAHRENHEIT

**Actual grams does not include negative impinger catches in the calculation of the total PM catch.

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
MOTES SYSTEM	Total PM	lb/bale	0.13	0.11	0.11	0.12
	PM-10	lb/bale	0.0646	0.0738	0.0529	0.0638

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ALTA VISTA GIN - NOV. 3 & 4, 1994

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
3	Stack temperature	Deg F	61.8	74.2	77.7	
LINT CLEANER CYCLONE (1 OF 6)	Pressure	in. HG	29.65	29.65	29.65	
	Moisture	%	0.022	0	0.023	
	Oxygen	%	20.9	20.9	20.9	
	Volumetric flow, actual	acfm	3948	4057	3933	
	Volumetric flow, standard*	dscfm	3898	3914	3768	
	Isokinetic variation	%	94.25	92.21	96.08	
Circle: Production or feed rate Capacity:		bales/hr	11.6	23.6	25.5	
	Pollutant concentrations:					
	Total PM--reported	g	0.0225	0.0258	0.0107	
	Total PM--actual**	g	0.0240	0.0268	0.0122	
	Total PM--reported	G/dscf	0.0080	0.0098	0.0041	
	Total PM--actual	G/dscf	0.0085	0.0102	0.0047	
	PM-10	% OF TOTAL	44.5%	55.4%	42.6%	
	Pollutant mass flux rates:					
	Total PM	lb/hr	0.285	0.341	0.151	0.259
	PM-10	lb/hr	0.127	0.189	0.0643	0.127
	Emission factors (ENGLISH UNITS):					AVERAGE
	Total PM	lb/bale	0.025	0.014	0.0059	0.015
	PM-10	lb/bale	0.011	0.0080	0.0025	0.0072
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/bale	0.011	0.0066	0.0027	0.0068
	PM-10	kg/bale	0.0050	0.0036	0.0011	0.0032

*DSCFM BASED ON A STANDARD TEMPERATURE OF 60 DEGREES FAHRENHEIT

**Actual grams does not include negative impinger catches in the calculation of the total PM catch.

TO OBTAIN TOTAL PROCESS EMISSION FACTORS, MULTIPLY THE CALCULATED EMISSION FACTORS BY THE TOTAL NUMBER OF PROCESS CYCLONES (6)

Source	Emission factors (ENGLISH UNITS):					AVERAGE
LINT CLEANER	Total PM	lb/bale	0.15	0.087	0.036	0.090
	PM-10	lb/bale	0.066	0.048	0.015	0.043