

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:	10
Title:	Halls Gin Company--Particulate Emissions from Cotton Gin Exhausts, State of Tennessee Department of Health and Environment Division of Air Pollution Control, Nashville, TN, October 25-27, 1988.

Section 4
 Ref ~~45~~
 10

Source category: Cotton
 Plant name : Halls Gin
 Test date : Oct. 25-27, 1988
 Process :

COTTON10

Date: 11/30/94
 Location: Halls, TN
 Ref. No.:

Source	Pollutant	Run No.	Emission rate, lb/hr	Process rate, bales/hr	Emission factor	
					kg/bale	lb/bale
TOTAL EMISSION FACTORS BY PROCESS						
SUCTION CYCLONES	filt. PM	1			0.00768	0.0169
	filt. PM	2			0.00824	0.0181
	filt. PM	3			0.00739	0.0163
	AVERAGE					0.00777
INCLINED CLEANER 1 CYCLONES	filt. PM	1			0.0222	0.0489
	filt. PM	2			0.0245	0.0539
	filt. PM	3			0.0331	0.0730
	AVERAGE					0.0266
INCLINED CLEANER 2 CYCLONES	filt. PM	1			0.0163	0.0359
	filt. PM	2			0.0176	0.0387
	filt. PM	3			0.0158	0.0348
	AVERAGE					0.0166
OVERFLOW CYCLONES	filt. PM	1			0.0120	0.0265
	filt. PM	2			0.0141	0.0310
	filt. PM	3			0.0136	0.0299
	AVERAGE					0.0132
MOTE TRASH CYCLONES	filt. PM	1			0.0195	0.0431
	filt. PM	2			0.0227	0.0499
	filt. PM	3			0.0186	0.0410
	AVERAGE					0.0203
COTTON WASTE DISPOSAL CYCLONES	filt. PM	1			0.0337	0.0743
	filt. PM	2			0.0283	0.0624
	filt. PM	3			0.0372	0.0819
	AVERAGE					0.0331
MOTE PRESS CYCLONES	filt. PM	1			0.0322	0.0708
	filt. PM	2			0.0286	0.0630
	filt. PM	3			0.0342	0.0754
	AVERAGE					0.0317
BATTERY CONDENSER VENT <i>w/80 MESH SCREEN</i>	filt. PM	1			0.00735	0.0162
	filt. PM	2			0.00502	0.0111
	filt. PM	3			0.00524	0.0115
	AVERAGE					0.00587
LINT CLEANER FIRST AND SECOND STAGES <i>w/16D PERFORATED DRUMS</i>	filt. PM	1			0.125	0.275
	filt. PM	2			0.131	0.288
	filt. PM	3			0.154	0.340
	AVERAGE					0.137
LINT CLEANER THIRD STAGE <i>w/80 MESH SCREEN</i>	filt. PM	1			0.00718	0.0158
	filt. PM	2			0.00842	0.0185
	filt. PM	3			0.00963	0.0212
	AVERAGE					0.00841

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					kg/bale	lb/bale
Suction cyclone 1A	filt. PM	1	0.0575	15.45	0.00169	0.00372
	filt. PM	2	0.0719	15.45	0.00211	0.00465
	filt. PM	3	0.0599	15.45	0.00176	0.00388
	AVERAGE					0.00185
Suction cyclone 1B	filt. PM	1	0.0815	15.45	0.00239	0.00528
	filt. PM	2	0.0719	15.45	0.00211	0.00465
	filt. PM	3	0.0623	15.45	0.00183	0.00403
	AVERAGE					0.00211
Suction cyclone 1C	filt. PM	1	0.0551	15.45	0.00162	0.00357
	filt. PM	2	0.0647	15.45	0.00190	0.00419
	filt. PM	3	0.0719	15.45	0.00211	0.00465
	AVERAGE					0.00188
Suction cyclone 1D	filt. PM	1	0.0671	15.45	0.00197	0.00434
	filt. PM	2	0.0719	15.45	0.00211	0.00465
	filt. PM	3	0.0575	15.45	0.00169	0.00372
	AVERAGE					0.00192
1B Inclined cleaner cyclone 2A	filt. PM	1	0.199	16.71	0.00541	0.0119
	filt. PM	2	0.290	16.71	0.00788	0.0174
	filt. PM	3	0.405	16.71	0.0110	0.0242
	AVERAGE					0.00810
1B Inclined cleaner cyclone 2B	filt. PM	1	0.290	16.71	0.00788	0.0174
	filt. PM	2	0.294	16.71	0.00799	0.0176
	filt. PM	3	0.279	16.71	0.00758	0.0167
	AVERAGE					0.00782
1A Inclined cleaner cyclone 3A	filt. PM	1	0.152	15.45	0.00447	0.00984
	filt. PM	2	0.137	15.45	0.00403	0.00887
	filt. PM	3	0.191	15.45	0.00561	0.0124
	AVERAGE					0.00470
1A Inclined cleaner cyclone 3B	filt. PM	1	0.152	15.45	0.00447	0.00984
	filt. PM	2	0.156	15.45	0.00458	0.0101
	filt. PM	3	0.304	15.45	0.00893	0.0197
	AVERAGE					0.00599
2B Inclined cleaner cyclone 4A	filt. PM	1	0.0988	16.71	0.00268	0.00591
	filt. PM	2	0.117	16.71	0.00318	0.00700
	filt. PM	3	0.115	16.71	0.00312	0.00688
	AVERAGE					0.00300
2B Inclined cleaner cyclone 4B	filt. PM	1	0.099	16.71	0.00268	0.00591
	filt. PM	2	0.140	16.71	0.00380	0.00838
	filt. PM	3	0.124	16.71	0.00337	0.00742
	AVERAGE					0.00329

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					kg/bale	lb/bale
2A Inclined cleaner cyclone 5A	filt. PM	1	0.206	16.71	0.00560	0.0123
	filt. PM	2	0.184	16.71	0.00500	0.0110
	filt. PM	3	0.114	16.71	0.00310	0.00682
	AVERAGE					0.00456
2A Inclined cleaner cyclone 5B	filt. PM	1	0.197	16.71	0.00535	0.0118
	filt. PM	2	0.206	16.71	0.00560	0.0123
	filt. PM	3	0.228	16.71	0.00619	0.0136
	AVERAGE					0.00571
Overflow cyclone 6A	filt. PM	1	0.179	16.71	0.00486	0.0107
	filt. PM	2	0.196	16.71	0.00533	0.0117
	filt. PM	3	0.152	16.71	0.00413	0.00910
	AVERAGE					0.00477
Overflow cyclone 6B	filt. PM	1	0.263	16.71	0.00715	0.0157
	filt. PM	2	0.322	16.71	0.00875	0.0193
	filt. PM	3	0.348	16.71	0.00945	0.0208
	AVERAGE					0.00845
Mote trash cyclone 7A	filt. PM	1	0.325	16.71	0.00883	0.0194
	filt. PM	2	0.403	16.71	0.0109	0.0241
	filt. PM	3	0.369	16.71	0.0100	0.0221
	AVERAGE					0.00993
Mote trash cyclone 7B	filt. PM	1	0.391	16.56	0.0107	0.0236
	filt. PM	2	0.427	16.56	0.0117	0.0258
	filt. PM	3	0.314	16.56	0.00861	0.0190
	AVERAGE					0.0103
Cotton waste disposal cyclone 8A	filt. PM	1	0.650	16.56	0.0178	0.0393
	filt. PM	2	0.620	16.56	0.0170	0.0374
	filt. PM	3	0.761	16.56	0.0209	0.0460
	AVERAGE					0.0186
Cotton waste disposal cyclone 8B	filt. PM	1	0.581	16.56	0.0159	0.0351
	filt. PM	2	0.414	16.56	0.0114	0.0250
	filt. PM***	3	0.596	16.56	0.0163	0.0360
	AVERAGE					0.0145

RUN 3 WAS VOID. EMISSIONS ESTIMATED USING RATIO OF RUN 3 (8A CYCLONE) TO AVG. OF RUNS 1 AND 2 (8A CYCL.) MULT. BY AVG. OF RUNS 1 AND 2 (8B CYCL.).

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					kg/bale	lb/bale
Mote press cyclone 9	filt. PM	1	0.408	16.56	0.0112	0.0246
	filt. PM	2	0.464	16.56	0.0127	0.0280
	filt. PM	3	0.587	16.56	0.0161	0.0354
	AVERAGE					0.0133
Mote press cyclone 10	filt. PM	1	0.337	16.56	0.00924	0.0204
	filt. PM	2	0.180	16.56	0.00493	0.0109
	filt. PM	3	0.210	16.56	0.00576	0.0127
	AVERAGE					0.00664
Mote press cyclone 11	filt. PM	1	0.428	16.56	0.0117	0.0258
	filt. PM	2	0.400	16.56	0.0110	0.0242
	filt. PM	3	0.451	16.56	0.0124	0.0272
	AVERAGE					0.0117
Battery condenser vent	filt. PM	1	0.268	16.56	0.00735	0.0162
	filt. PM	2	0.183	16.56	0.00502	0.0111
	filt. PM	3	0.191	16.56	0.00524	0.0115
	AVERAGE					0.00587
Gin stand 1B (Moss)	filt. PM	1	0.122	16.56	0.00334	0.00737
	filt. PM	2	0.139	16.56	0.00381	0.00839
	filt. PM	3	0.153	16.56	0.00419	0.00924
	AVERAGE					0.00378
Gin stand 1A (16D)	filt. PM	1	1.81	16.56	0.0496	0.109
	filt. PM	2	1.68	16.56	0.0461	0.101
	filt. PM	3	2.27	16.56	0.0622	0.137
	AVERAGE					0.0526
Gin stand 2B (Moss)	filt. PM	1	0.0971	16.71	0.00264	0.00581
	filt. PM	2	0.113	16.71	0.00307	0.00676
	filt. PM	3	0.131	16.71	0.00356	0.00784
	AVERAGE					0.00309
Gin stand 2A (16D)	filt. PM	1	1.80	16.71	0.0489	0.108
	filt. PM	2	2.12	16.71	0.0576	0.127
	filt. PM	3	2.23	16.71	0.0606	0.133
	AVERAGE					0.0557
Gin stand 3B (Moss)	filt. PM	1	0.0441	16.71	0.00120	0.00264
	filt. PM	2	0.0565	16.71	0.00154	0.00338
	filt. PM	3	0.0689	16.71	0.00187	0.00412
	AVERAGE					0.00154
Gin stand 3A (16D)	filt. PM	1	0.964	16.71	0.0262	0.0577
	filt. PM	2	1.00	16.71	0.0272	0.0598
	filt. PM	3	1.16	16.71	0.0315	0.0694
	AVERAGE					0.0283