

Cotton dust: Geometric mean exposures and percent exceeding designated occupational exposure limits by OSHA region, state and process, OSHA samples, 1980–2003 (page 1 of 3)

OSHA Region	All years			1980–1989			1990–1994			1995–2003			
	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	
Region 1	9	0.048	-	0	-	-	3	0.139	0.0	0.0	6	0.028	0.0
Massachusetts	3	0.139	-	0	-	-	3	0.139	0.0	0.0	0	-	-
Cotton Waste Proc/Recycl & Ginning	3	0.139	-	0	-	-	3	0.139	0.0	0.0	0	-	-
New Hampshire	6	0.028	-	0	-	-	0	-	-	-	6	0.028	0.0
Yarn Manufacturing & Cotton Washing	4	0.089	-	0	-	-	0	-	-	-	4	0.089	0.0
Undetermined Process	2	0.003	-	0	-	-	0	-	-	-	2	0.003	0.0
Region 2	10	1.093	50.0	10	1.093	50.0	10	1.093	90.0	90.0	0	-	-
New Jersey	9	2.119	55.6	9	2.119	55.6	9	2.119	100.0	100.0	0	-	-
Textile Mill Waste House	1	0.965	100.0	1	0.965	100.0	1	0.965	100.0	100.0	0	-	-
Cotton Waste Proc/Recycl & Ginning	8	2.338	50.0	8	2.338	50.0	8	2.338	100.0	100.0	0	-	-
Puerto Rico	1	0.003	0.0	1	0.003	0.0	1	0.003	0.0	0.0	0	-	-
Undetermined Process	1	0.003	0.0	1	0.003	0.0	1	0.003	0.0	0.0	0	-	-
Region 3	4	0.029	0.0	4	0.029	0.0	4	0.029	0.0	25.0	0	-	-
Maryland	1	0.014	0.0	1	0.014	0.0	1	0.014	0.0	0.0	0	-	-
Undetermined Process	1	0.014	0.0	1	0.014	0.0	1	0.014	0.0	0.0	0	-	-
Pennsylvania	3	0.038	0.0	3	0.038	0.0	3	0.038	33.3	33.3	0	-	-
Textile Mill Waste House	1	0.260	0.0	1	0.260	0.0	1	0.260	0.0	100.0	0	-	-
Cotton Waste Proc/Recycl & Ginning	1	0.072	0.0	1	0.072	0.0	1	0.072	0.0	0.0	0	-	-
Undetermined Process	1	0.003	0.0	1	0.003	0.0	1	0.003	0.0	0.0	0	-	-

See footnotes at end of table.

Cotton dust: Geometric mean exposures and percent exceeding designated occupational exposure limits by OSHA region, state and process, OSHA samples, 1980–2003 (page 2 of 3)

OSHA Region	All years			1980–1989			1990–1994			1995–2003		
	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL
Region 4	954	0.133	37.2	470	0.154	30.2	367	0.123	22.1	117	0.091	9.4
Alabama	91	0.195	56.8	37	0.282	56.8	46	0.196	19.6	8	0.035	12.5
Yarn Manufacturing & Cotton Washing	68	0.181	54.5	33	0.223	54.5	29	0.168	31.0	6	0.081	16.7
Textile Mill Waste House	3	0.154	0.0	1	0.115	0.0	2	0.179	0.0	0	-	-
Textile Slashing and Weaving	1	0.449	-	0	-	-	1	0.449	0.0	0	-	-
Cotton Waste Proc/Recycl & Garmetting	17	0.431	100.0	3	4.898	100.0	14	0.256	0.0	0	-	-
Undetermined Process	2	0.003	-	0	-	-	0	-	-	2	0.003	0.0
Georgia	209	0.157	46.6	131	0.160	43.5	53	0.146	24.5	25	0.164	20.0
Yarn Manufacturing & Cotton Washing	184	0.166	47.5	120	0.175	47.5	46	0.147	28.3	18	0.156	27.8
Textile Mill Waste House	4	0.159	0.0	1	0.098	0.0	3	0.187	0.0	0	-	-
Textile Slashing and Weaving	13	0.102	33.3	6	0.089	0.0	4	0.111	0.0	3	0.119	0.0
Cotton Waste Proc/Recycl & Garmetting	6	0.295	100.0	2	0.376	0.0	0	-	-	4	0.262	0.0
Undetermined Process	2	0.003	0.0	2	0.003	0.0	0	-	-	0	-	-
Mississippi	1	0.050	0.0	1	0.050	0.0	0	-	-	0	-	-
Yarn Manufacturing & Cotton Washing	1	0.050	0.0	1	0.050	0.0	0	-	-	0	-	-
North Carolina	496	0.124	28.0	250	0.129	21.2	208	0.128	21.6	38	0.076	7.9
Yarn Manufacturing & Cotton Washing	381	0.132	24.9	189	0.144	24.9	166	0.131	24.1	26	0.075	11.5
Textile Mill Waste House	27	0.118	13.3	15	0.087	0.0	11	0.201	9.1	1	0.037	0.0
Textile Slashing and Weaving	53	0.161	51.6	31	0.141	12.9	16	0.255	25.0	6	0.096	0.0
Cotton Waste Proc/Recycl & Garmetting	22	0.202	55.6	9	0.255	22.2	9	0.172	0.0	4	0.170	0.0
Undetermined Process	13	0.003	0.0	6	0.003	0.0	6	0.003	0.0	1	0.003	0.0
South Carolina	141	0.139	40.4	47	0.202	21.3	51	0.115	27.5	43	0.115	4.7
Yarn Manufacturing & Cotton Washing	98	0.106	15.4	26	0.130	15.4	43	0.125	30.2	29	0.069	0.0
Textile Mill Waste House	12	0.247	55.6	9	0.224	44.4	0	-	-	3	0.332	66.7
Textile Slashing and Weaving	20	0.403	83.3	12	0.489	16.7	0	-	-	8	0.302	0.0
Cotton Waste Proc/Recycl & Garmetting	8	0.472	-	0	-	-	5	0.521	20.0	3	0.401	0.0
Undetermined Process	3	0.003	-	0	-	-	3	0.003	0.0	0	-	-
Tennessee	16	0.011	100.0	4	0.645	25.0	9	0.003	0.0	3	0.003	0.0
Yarn Manufacturing & Cotton Washing	1	7.400	100.0	1	7.400	100.0	0	-	-	0	-	-
Cotton Waste Proc/Recycl & Garmetting	3	0.286	100.0	3	0.286	0.0	0	-	-	0	-	-
Undetermined Process	12	0.003	-	0	-	-	9	0.003	0.0	3	0.003	0.0

See footnotes at end of table.

Cotton dust: Geometric mean exposures and percent exceeding designated occupational exposure limits by OSHA region, state and process, OSHA samples, 1980–2003 (page 3 of 3)

OSHA Region	All years			1980–1989			1990–1994			1995–2003			
	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	No. of Samples	GM (mg/m ³)	% > PEL	
Region 5	9	1.786	71.4	7	3.479	71.4	71.4	1	3.000	100.0	1	0.010	0.0
Illinois	8	1.674	71.4	7	3.479	71.4	71.4	0	-	-	1	0.010	0.0
Yarn Manufacturing & Cotton Washing	2	0.200	0.0	2	0.200	0.0	0.0	0	-	-	0	-	-
Textile Mill Waste House	2	7.421	100.0	2	7.421	100.0	100.0	0	-	-	0	-	-
Cotton Waste Proc/Recycl & Garnetting	4	2.300	100.0	3	14.092	100.0	100.0	0	-	-	1	0.010	0.0
Michigan	1	3.000	-	0	-	-	-	1	3.000	100.0	0	-	-
Cotton Waste Proc/Recycl & Garnetting	1	3.000	-	0	-	-	-	1	3.000	100.0	0	-	-
Region 6	77	0.281	54.7	75	0.283	54.7	62.7	2	0.212	0.0	0	-	-
Texas	77	0.281	54.7	75	0.283	54.7	62.7	2	0.212	0.0	0	-	-
Yarn Manufacturing & Cotton Washing	62	0.278	61.3	62	0.278	61.3	61.3	0	-	-	0	-	-
Textile Mill Waste House	4	0.139	0.0	4	0.139	0.0	25.0	0	-	-	0	-	-
Textile Slashing and Weaving	1	0.410	100.0	1	0.410	0.0	100.0	0	-	-	0	-	-
Cotton Waste Proc/Recycl & Garnetting	10	0.380	87.5	8	0.439	37.5	87.5	2	0.212	0.0	0	-	-
Region 7	19	0.493	100.0	1	0.740	0.0	100.0	18	0.482	66.7	0	-	-
Kansas	18	0.482	-	0	-	-	-	18	0.482	66.7	0	-	-
Textile Mill Waste House	17	0.593	-	0	-	-	-	17	0.593	70.6	0	-	-
Undetermined Process	1	0.014	-	0	-	-	-	1	0.014	0.0	0	-	-
Missouri	1	0.740	100.0	1	0.740	0.0	100.0	0	-	-	0	-	-
Cotton Waste Proc/Recycl & Garnetting	1	0.740	100.0	1	0.740	0.0	100.0	0	-	-	0	-	-
Region 8	4	0.714	100.0	4	0.714	0.0	100.0	0	-	-	0	-	-
Colorado	2	0.570	100.0	2	0.570	0.0	100.0	0	-	-	0	-	-
Cotton Waste Proc/Recycl & Garnetting	2	0.570	100.0	2	0.570	0.0	100.0	0	-	-	0	-	-
Utah	2	0.896	100.0	2	0.896	0.0	100.0	0	-	-	0	-	-
Cotton Waste Proc/Recycl & Garnetting	2	0.896	100.0	2	0.896	0.0	100.0	0	-	-	0	-	-
Region 9	6	1.614	-	0	-	-	-	0	-	-	6	1.614	66.7
California	5	1.553	-	0	-	-	-	0	-	-	5	1.553	60.0
Cotton Waste Proc/Recycl & Garnetting	5	1.553	-	0	-	-	-	0	-	-	5	1.553	60.0
Hawaii	1	1.958	-	0	-	-	-	0	-	-	1	1.958	100.0
Yarn Manufacturing & Cotton Washing	1	1.958	-	0	-	-	-	0	-	-	1	1.958	100.0
TOTAL	1,092	0.150	33.8	571	0.180	33.8	42.4	391	0.133	24.0	130	0.097	11.5

- indicates incalculable field. PEL - permissible exposure limit GM - geometric mean mg/m³ - milligrams per cubic meter
 OSHA - Occupational Safety and Health Administration
 NOTE: The OSHA PEL is 0.2 mg/m³ for yarn manufacturing and cotton washing operations, 0.5 mg/m³ for textile mill waste house operations or for dust from lower grade washed cotton used during yarn manufacturing, 0.75 mg/m³ for textile slashing and weaving operations, and 1.0 mg/m³ for cotton waste processing operations or waste recycling (i.e., sorting, blending, cleaning, and willowing) and garnetting. The NIOSH REL is 0.2 mg/m³. See appendices for source description and methods.
 SOURCE: OSHA Integrated Management Information System.