

Summary of Mercury Emission Test Data in the Boiler Emissions Database for Liquid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
B107.002	Mercury	Distillate Liquid FF	No Control	8.33E-09
B107.001	Mercury	Distillate Liquid FF	No Control	9.4E-09
E4.004	Mercury	Residual Liquid FF	Cyclone	2.25E-08
B102.001	Mercury	Residual Liquid FF	No Control	4.04E-08
E22.004	Mercury	Residual Liquid FF	No Control	6.02E-08
E17.001	Mercury	Residual Liquid FF	No Control	0.000000237
E18.001	Mercury	Residual Liquid FF	Flue Gas Recirculation	0.000000456
E16.001	Mercury	Residual Liquid FF	No Control	0.00000136
E25.001	Mercury	Residual Liquid FF	No Control	0.000137

Summary of PM Emissions Test Data in Boiler Emissions Database for Liquid Fuel Boilers (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
B110.002	PM	Distillate Liquid FF	No Control	0.001186
B110.001	PM	Distillate Liquid FF	No Control	0.00179
B111.001	PM	Distillate Liquid FF	No Control	0.0146
B103.001	PM	Residual Liquid FF	Wet Scrubber	0.0234
B106.001	PM	Residual Liquid FF	No Control	0.047
B118.001	PM	Residual Liquid FF	No Control	0.0496
B105.001	PM	Distillate Liquid FF	No Control	0.0513
B114.001	PM	Residual Liquid FF	No Control	0.0825
E623.003	PM	Residual Liquid FF	No Control	0.0958
B117.001	PM	Residual Liquid FF	No Control	0.0983
B104.002	PM	Residual Liquid FF	No Control	0.113
B113.001	PM	Residual Liquid FF	No Control	0.114
B115.001	PM	Residual Liquid FF	No Control	0.138
B116.001	PM	Residual Liquid FF	No Control	0.145
B109.001	PM	Residual Liquid FF	No Control	0.174
B104.001	PM	Residual Liquid FF	No Control	0.414

Liquids - HCL data

* There is no emissions test data for HCl from Liquid fuel units in the boiler emissions database. Emission levels were developed using AP-42 emission factors.

Summary of Selected Metals Data from the Boiler Emissions Database for Liquid Fuel Units (8/3/01)

Test ID***	Pollutant	Fuel type	Control Level	Avg Emission Factor (lb/MMBtu)
10.002/003	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000460634
13.003/004	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000935143
3.004/005	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000312414
8.002	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000437107
E10.003/006	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000357394
E16.001/003	Total 8 Selected Metals	Residual Liquid FF	No Control	0.002083157
E17.001/004	Total 8 Selected Metals	Residual Liquid FF	No Control	0.001563316
E18.001	Total 8 Selected Metals	Residual Liquid FF	Flue Gas Recirculation	0.000750984
E215.006	Total 8 Selected Metals	Residual Liquid FF	Cyclone/Carbon Injection	0.000767523
E22.004	Total 8 Selected Metals	Residual Liquid FF	No Control	0.002031917
E242.001	Total 8 Selected Metals	Residual Liquid FF	Flue Gas Recirculation	0.001474198
E242.005	Total 8 Selected Metals	Residual Liquid FF	Flue Gas Recirculation	0.000968097
E243.001c	Total 8 Selected Metals	Residual Liquid FF	ESP	0.000316002
E243.001u	Total 8 Selected Metals	Residual Liquid FF	No Control	0.001035722
E25.001/004	Total 8 Selected Metals	Residual Liquid FF	No Control	0.001141446
E251a.001c	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000733442
E251a.001u	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000639428
E251b.001u	Total 8 Selected Metals	Residual Liquid FF	Flue Gas Desulfurization	0.00055947
E254.004/007	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000410152
E255.004/006	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000281627
E4.004	Total 8 Selected Metals	Residual Liquid FF	Cyclone	0.000246432
E400.004/005	Total 8 Selected Metals	Residual Liquid FF	Flue Gas Recirculation	0.000373749
E8.004/005	Total 8 Selected Metals	Residual Liquid FF	No Control	0.000439789

*** The test IDs that are followed by 2 3-digit numbers (i.e. 10.002/003) represent a sum of 2 tests on the same unit. In some cases, a test would include 7 metals in one test while chromium was included as a separate test run on the same unit. In these cases, the chromium emissions were added to the sum of the other 7 metals.

Summary of Mercury Emissions Data in Boiler Emission Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E925.002	Mercury	Coal	ESP	0.00000011
E11.003	Mercury	Coal	ESP/Venturi Scrubber	0.00000017
E20.004	Mercury	Coal	Fabric Filter/Limestone Injection (DSI)	0.000000252
E803.002	Mercury	Coal	ESP	0.000000412
E695.003	Mercury	Coal	Fabric Filter	0.000000672
E803.001	Mercury	Coal	ESP	0.000000861
E695.001	Mercury	Coal	Fabric Filter	0.00000114
E735.015	Mercury	Coal	ESP	0.0000016
E962.002	Mercury	Coal	Fabric Filter/Limestone Injection (DSI)	0.00000219
E735.022	Mercury	Coal	ESP	0.00000292
E735.019	Mercury	Coal	ESP	0.00000321
E1021.001	Mercury	Coal	Fabric Filter	0.0000108
E630.004	Mercury	Coal	Fabric Filter/Spray Dryer	0.0000122
E19.001	Mercury	Coal	Fabric Filter/Limestone Injection (DSI)	0.0000404
E692.001	Mercury	Coal/Wood/NFF Liquid/NFF Solid	ESP	7.68E-08
E692.002	Mercury	Coal/Wood/NFF Liquid/NFF Solid	ESP	8.92E-08
E692.003	Mercury	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.000000104
E885.001	Mercury	Coal/Wood/NFF Liquid/NFF Solid	Wet Scrubber	0.000000112
E888.001	Mercury	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.000000163
E714.008	Mercury	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.000000175
E958.011	Mercury	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.000000463
E714.003	Mercury	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.000000964
E678.004	Mercury	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.000000991
E883.003	Mercury	Coal/Wood/NFF Liquid/NFF Solid	FF/Wet Scrubber	0.00000258
E612.012	Mercury	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0000032
E735.010	Mercury	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.00000343
E684.012	Mercury	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.00000529
E958.004	Mercury	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	3.12E-08
E951.003	Mercury	Gas/Wood/Other Biomass/Liquid FF	Cyclone	0.000000364
E958.005	Mercury	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.000000483
E986.008	Mercury	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.00000199
E775.001	Mercury	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Fabric Filter	7.48E-08
E697.011	Mercury	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.0000098
E272.002	Mercury	Wood	Wet Scrubber	7.57E-13
E269.003	Mercury	Wood	Wet Scrubber	4.01E-10
E833.005	Mercury	Wood	Fabric Filter/Limestone Injection (DSI)	3.76E-09
E833.006	Mercury	Wood	Fabric Filter/Limestone Injection (DSI)	3.78E-09
E28.003	Mercury	Wood	Wet Scrubber	2.77E-08
E1026.001	Mercury	Wood	ESP	2.78E-08

Summary of Mercury Emissions Data in Boiler Emission Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E525.001	Mercury	Wood	ESP	5.12E-08
E526.001	Mercury	Wood	ESP	5.88E-08
E1026.005	Mercury	Wood	ESP	6.78E-08
E1026.011	Mercury	Wood	ESP	6.92E-08
E520.001	Mercury	Wood	ESP	0.000000086
E1026.051	Mercury	Wood	ESP	0.000000113
E521.001	Mercury	Wood	ESP	0.000000156
E27.008	Mercury	Wood	Fabric Filter/Limestone Injection (DSI)	0.000000214
E625.001	Mercury	Wood	ESP/Venturi Scrubber	0.000000223
E273.005	Mercury	Wood	ESP	0.000000238
E739.001	Mercury	Wood	Fabric Filter	0.000000281
E268.002	Mercury	Wood	ESP	0.000000286
E404.001	Mercury	Wood	ESP	0.000000324
E523.003	Mercury	Wood	ESP	0.000000324
E518.001	Mercury	Wood	ESP	0.000000404
E270.004	Mercury	Wood	Cyclone	0.000000417
E274.003	Mercury	Wood	Cyclone	0.000000428
E619.001	Mercury	Wood	ESP	0.000000493
E1026.041	Mercury	Wood	ESP	0.000000497
E278.003	Mercury	Wood	Wet Scrubber	0.000000565
E620.002	Mercury	Wood	ESP	0.000000601
E522.001	Mercury	Wood	ESP	0.000000648
E795.013	Mercury	Wood	Fabric Filter/Spray Dryer	0.000000685
E275.002	Mercury	Wood	Cyclone	0.000000736
E527.001	Mercury	Wood	ESP	0.000000885
E276.005	Mercury	Wood	Cyclone	0.00000106
E738.002	Mercury	Wood	Fabric Filter	0.00000108
E724.010	Mercury	Wood	ESP	0.0000012
E794.001	Mercury	Wood	Fabric Filter/Spray Dryer	0.00000137
E1026.021	Mercury	Wood	ESP	0.00000158
E724.001	Mercury	Wood	ESP	0.00000159
E271.003	Mercury	Wood	Cyclone	0.0000019
E783a.001	Mercury	Wood	ESP	0.0000025
E778.008	Mercury	Wood	No Control	0.00000342
E533b.001	Mercury	Wood	No Control	0.00000406
E533c.001	Mercury	Wood	No Control	0.00000426
E798a.024	Mercury	Wood	Fabric Filter/Spray Dryer	0.00000437
E533c.006	Mercury	Wood	No Control	0.00000447
E533a.001	Mercury	Wood	No Control	0.00000695
E853.001	Mercury	Wood	Wet Scrubber	0.000042
E519.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	7.92E-08
E27.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.000000524
E802.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.000000556
E795.021	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.000000628
E798b.006	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.0000007
E802.004	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.000000746

Summary of Mercury Emissions Data in Boiler Emission Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E795.005	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.000000755
E854.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.000000756
E855.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Venturi Scrubber	0.000000978
E676.003	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000106
E935.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000125
E797.019	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00000137
E823.003	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.00000138
E986.002	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Venturi Scrubber	0.00000139
E675.004	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000146
E783a.004	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000214
E783a.003	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000235
E783a.002	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000248
E823.004	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.00000271
E935.002	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00000274
E797.010	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00000304
E798a.010	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.0000035
E823.002	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.00000391
E631.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00000596
E697.007	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.00000606
E823.001	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.00000867

Summary of Mercury Emissions Data in Boiler Emission Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E1026.031	Mercury	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0000605

Summary of HCl Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E683.003	Hydrochloric Acid	Coal	ESP	0.000447
E1.009	Hydrochloric Acid	Coal	Fabric Filter	0.000477
E2.009	Hydrochloric Acid	Coal	Fabric Filter/Limestone Injection (DSI)	0.000657
E11.004	Hydrochloric Acid	Coal	ESP/Venturi Scrubber	0.000862
E19.005	Hydrochloric Acid	Coal	Fabric Filter/Limestone Injection (DSI)	0.000967
E20.006	Hydrochloric Acid	Coal	Fabric Filter/Limestone Injection (DSI)	0.00102
E15.004	Hydrochloric Acid	Coal	Fabric Filter/Limestone Injection (DSI)	0.00142
E1021.006	Hydrochloric Acid	Coal	Fabric Filter	0.00388
E735.027	Hydrochloric Acid	Coal	ESP	0.00521
E769.003	Hydrochloric Acid	Coal	ESP	0.00895
E769.001	Hydrochloric Acid	Coal	ESP	0.0129
E769.002	Hydrochloric Acid	Coal	ESP	0.0156
E735.041	Hydrochloric Acid	Coal	ESP	0.0371
E91.006	Hydrochloric Acid	Coal	No Control	0.0446
E735.035	Hydrochloric Acid	Coal	ESP	0.0485
E928.001	Hydrochloric Acid	Coal	ESP	0.0582
E958.009	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.000171
E683.006	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.000912
E781.009	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.00153
E735.005	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.00242
E693.001	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.00452
E677.002	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	Cyclone	0.00699
E965.001	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.00919
E693.002	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0104
E684.010	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0349
E612.011	Hydrochloric Acid	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0359
E986.007	Hydrochloric Acid	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.0000296
E784.004	Hydrochloric Acid	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.000434
E948.001	Hydrochloric Acid	Gas/Wood/Other Biomass/Liquid FF	No Control	0.00065
E958.003	Hydrochloric Acid	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.00382
E781.003	Hydrochloric Acid	Gas/Wood/Other Biomass/Liquid FF	No Control	0.00412
E906.001	Hydrochloric Acid	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	ESP	0.000416
E677.004	Hydrochloric Acid	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	ESP	0.00227
E778.002	Hydrochloric Acid	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	No Control	0.00557
E697.012c	Hydrochloric Acid	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.0156

Summary of HCl Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E697.012u	Hydrochloric Acid	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Limestone Injection (DSI)	0.108
E934.002	Hydrochloric Acid	Wood	ESP/Wet Scrubber	0.0000216
E1026.052	Hydrochloric Acid	Wood	ESP	0.000154
E518.002	Hydrochloric Acid	Wood	ESP	0.000167
E521.002	Hydrochloric Acid	Wood	ESP	0.000192
E1026.022	Hydrochloric Acid	Wood	ESP	0.000219
E961.009	Hydrochloric Acid	Wood	Cyclone	0.000316
E731.001	Hydrochloric Acid	Wood	Fabric Filter	0.000354
E798a.022	Hydrochloric Acid	Wood	Fabric Filter/Spray Dryer	0.000373
E961.008	Hydrochloric Acid	Wood	Cyclone	0.000409
E903.002	Hydrochloric Acid	Wood	No Control	0.000472
E960.001	Hydrochloric Acid	Wood	No Control	0.000525
E724.017	Hydrochloric Acid	Wood	ESP	0.000737
E724.008	Hydrochloric Acid	Wood	ESP	0.000765
E1026.042	Hydrochloric Acid	Wood	ESP	0.00121
E601.002	Hydrochloric Acid	Wood	Cyclone	0.00157
E522.002	Hydrochloric Acid	Wood	ESP	0.0017
E526.002	Hydrochloric Acid	Wood	ESP	0.00282
E617.003	Hydrochloric Acid	Wood	ESP	0.00282
E794.004	Hydrochloric Acid	Wood	Fabric Filter/Spray Dryer	0.00289
E618.002	Hydrochloric Acid	Wood	ESP	0.00296
E619.003	Hydrochloric Acid	Wood	ESP	0.00467
E525.002	Hydrochloric Acid	Wood	ESP	0.00468
E908.001	Hydrochloric Acid	Wood	Cyclone	0.00716
E527.002	Hydrochloric Acid	Wood	ESP	0.00974
E620.001	Hydrochloric Acid	Wood	ESP	0.00974
E27.010	Hydrochloric Acid	Wood	Fabric Filter/Limestone Injection (DSI)	0.0102
E1026.003	Hydrochloric Acid	Wood	ESP	0.0148
E961.004	Hydrochloric Acid	Wood	Cyclone	0.022
E1026.012	Hydrochloric Acid	Wood	ESP	0.023
E520.003	Hydrochloric Acid	Wood	ESP	0.0289
E614.004	Hydrochloric Acid	Wood	ESP/Limestone Injection (DSI)	0.0476
E613.004	Hydrochloric Acid	Wood	ESP	0.0782
E532.002	Hydrochloric Acid	Wood	Fabric Filter	0.178
E602.001	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0000305
E986.001	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Venturi Scrubber	0.0000996
E602.002	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.000101
E795.023	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.000236
E795.006	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.000349
E798a.008	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.000463
E731.003	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.000501
E798b.001	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00116

Summary of HCl Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E1026.032	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00121
E519.003	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00135
E607.002	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Cyclone/Spray Dryer	0.0018
E797.008	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00251
E628.004	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00287
E697.004c	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.00389
E797.017	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00534
E27.003	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.00952
E935.004	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0137
E607.001	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Cyclone/Spray Dryer	0.0211
E608.003	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Cyclone/Spray Dryer	0.0258
E935.003	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0412
E644.001	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.0414
E644.002	Hydrochloric Acid	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.0452

Summary of Total Selected Metals Emissions Data from Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant***	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E269.003	Total 8 Selected Metals	Wood	Wet Scrubber	5.35963E-07
E270.004	Total 8 Selected Metals	Wood	Cyclone	0.001572569
E271.003	Total 8 Selected Metals	Wood	Cyclone	0.00522572
E272.002	Total 8 Selected Metals	Wood	Wet Scrubber	1.27461E-10
E274.003	Total 8 Selected Metals	Wood	Cyclone	0.001306634
E275.002	Total 8 Selected Metals	Wood	Cyclone	0.00121522
E276.005	Total 8 Selected Metals	Wood	Cyclone	0.00175241
E278.003	Total 8 Selected Metals	Wood	Wet Scrubber	0.001922814
E28.003	Total 8 Selected Metals	Wood	Wet Scrubber	0.000051778
E625.001	Total 8 Selected Metals	Wood	ESP/Venturi Scrubber	0.000083463
E735.010	Total 8 Selected Metals	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.00121403
E735.015	Total 8 Selected Metals	Coal	ESP	0.000096774
E735.019	Total 8 Selected Metals	Coal	ESP	0.00019978
E735.022	Total 8 Selected Metals	Coal	ESP	0.00013312
E739.001	Total 8 Selected Metals	Wood	Fabric Filter	0.000055982
E753.004	Total 8 Selected Metals	Coal	No Control	0.000031504
E753.005	Total 8 Selected Metals	Coal	No Control	0.003274281
E753.009	Total 8 Selected Metals	Coal	No Control	0.00003802
E781.010	Total 8 Selected Metals	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.000221998
E958.012	Total 8 Selected Metals	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.000087811

*** These emission factors represent tests where all 8 selected metals were tested.

The 8 selected metals are: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium.

Summary of PM Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E627.001	PM	Coal	ESP	4.59E-08
E1023.005	PM	Coal	Fabric Filter/Limestone Injection (DSI)	0.000134
E11.005	PM	Coal	ESP/Venturi Scrubber	0.000294
E11.004	PM	Coal	ESP/Venturi Scrubber	0.00144
E1023.002	PM	Coal	Fabric Filter/Limestone Injection (DSI)	0.00293
E834b.003	PM	Coal	Fabric Filter	0.004
E925.001	PM	Coal	ESP	0.00484
E756.005	PM	Coal	ESP	0.0144
E834b.002	PM	Coal	Fabric Filter	0.0152
E630.001	PM	Coal	Fabric Filter/Spray Dryer	0.0176
E756.004	PM	Coal	ESP	0.0189
E756.006	PM	Coal	ESP	0.0211
E962.001	PM	Coal	Fabric Filter/Limestone Injection (DSI)	0.0276
E735.022	PM	Coal	ESP	0.0333
E605.002	PM	Coal	Fabric Filter	0.0338
E803.002	PM	Coal	ESP	0.0341
E803.001	PM	Coal	ESP	0.0362
E627.003	PM	Coal	ESP	0.0402
E834b.001	PM	Coal	Fabric Filter	0.0405
E605.001	PM	Coal	Fabric Filter	0.0433
E627.007	PM	Coal	ESP	0.0455
E627.005	PM	Coal	ESP	0.0478
E683.001	PM	Coal	ESP	0.0488
E755.001	PM	Coal	No Control	0.069
E755.002	PM	Coal	No Control	0.0815
E735.019	PM	Coal	ESP	0.0818
E809.005	PM	Coal	No Control	0.101
E753.001	PM	Coal	No Control	0.119
E735.015	PM	Coal	ESP	0.122
E809.007	PM	Coal	No Control	0.15
E91.009	PM	Coal	No Control	0.182
E809.001	PM	Coal	No Control	0.229
E809.003	PM	Coal	No Control	0.286
E5.005	PM	Coal	Cyclone	0.367
E753.006	PM	Coal	No Control	0.443
E5.006	PM	Coal	Cyclone	0.997
E693.001	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.00372
E722.001	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.00489
E693.002	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.00527
E883.003	PM	Coal/Wood/NFF Liquid/NFF Solid	FF/Wet Scrubber	0.00963
E692.002	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0108
E884.002	PM	Coal/Wood/NFF Liquid/NFF Solid	FF/Wet Scrubber	0.0109
E692.001	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0138
E692.003	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0144
E883.004	PM	Coal/Wood/NFF Liquid/NFF Solid	FF/Wet Scrubber	0.0164
E885.001	PM	Coal/Wood/NFF Liquid/NFF Solid	Wet Scrubber	0.017
E958.009	PM	Coal/Wood/NFF Liquid/NFF Solid	No Control	0.0291
E721.001	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.047

Summary of PM Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E714.006	PM	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.055
E714.001	PM	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	0.0617
E684.001	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.0836
E683.004	PM	Coal/Wood/NFF Liquid/NFF Solid	ESP	0.121
E735.010	PM	Coal/Wood/NFF Liquid/NFF Solid	Venturi Scrubber	2.86
E600.012	PM	Gas/Wood/Other Biomass/Liquid FF	ESP	0.00114
E531.005	PM	Gas/Wood/Other Biomass/Liquid FF	No Control	0.00787
E986.007	PM	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.0441
E958.004	PM	Gas/Wood/Other Biomass/Liquid FF	Venturi Scrubber	0.0945
E951.003	PM	Gas/Wood/Other Biomass/Liquid FF	Cyclone	0.165
E608.004	PM	Gas/Wood/Other Biomass/Liquid FF	Cyclone/Spray Dryer	0.656
E1020.002	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Fabric Filter	0.00154
E697.010c	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.00607
E679.008	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	ESP	0.00761
E647.001c	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	ESP	0.0117
E674.004	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	No Control	0.0161
E649.001	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	No Control	0.0184
E767.006	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	ESP/Flue Gas Desulfurization	0.039
E906.001	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	ESP	0.0509
E647.001uA	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	No Control	6.85
E647.001uB	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	No Control	7.36
E697.010u	PM	NFF Liquid/NFF Solid or Gas/NFF Liquid/NFF Solid	Limestone Injection (DSI)	7.69
E527.001	PM	Wood	ESP	0.000003
E525.001	PM	Wood	ESP	0.000262
E798a.025	PM	Wood	Fabric Filter/Spray Dryer	0.0011
E600.008	PM	Wood	ESP	0.00112
E1026.003	PM	Wood	ESP	0.00113
E600.001	PM	Wood	ESP	0.00143
E404.001	PM	Wood	ESP	0.00144
E404.004	PM	Wood	ESP	0.00148
E618.003	PM	Wood	ESP	0.00195
E526.001	PM	Wood	ESP	0.00211
E268.002	PM	Wood	ESP	0.00224
E600.006	PM	Wood	ESP	0.0024
E600.003	PM	Wood	ESP	0.00253
E619.001	PM	Wood	ESP	0.0026
E620.002	PM	Wood	ESP	0.003
E1026.011	PM	Wood	ESP	0.00356

Summary of PM Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E613.001	PM	Wood	ESP	0.00443
E520.001	PM	Wood	ESP	0.00452
E779.013	PM	Wood	ESP	0.00552
E268.003	PM	Wood	ESP	0.00564
E1026.001	PM	Wood	ESP	0.00628
E783a.001	PM	Wood	ESP	0.00645
E1026.051	PM	Wood	ESP	0.00655
E734.001	PM	Wood	ESP	0.0069
E522.001	PM	Wood	ESP	0.00705
E1026.006	PM	Wood	ESP	0.00717
E779.006	PM	Wood	ESP	0.0081
E521.001	PM	Wood	ESP	0.00882
E710.001	PM	Wood	ESP	0.00942
E523.003	PM	Wood	ESP	0.01
E706.004	PM	Wood	ESP	0.0104
E739.002	PM	Wood	Fabric Filter	0.0104
E706.005	PM	Wood	ESP	0.0112
E1026.021	PM	Wood	ESP	0.0117
E518.001	PM	Wood	ESP	0.0118
E524.001	PM	Wood	Cyclone	0.0122
E1026.005	PM	Wood	ESP	0.0123
E529.001	PM	Wood	ESP	0.0125
E266.002	PM	Wood	ESP	0.0126
E642.001	PM	Wood	Fabric Filter	0.013
E739.001	PM	Wood	Fabric Filter	0.0146
E524.003	PM	Wood	Cyclone	0.0152
E614.001	PM	Wood	ESP/Limestone Injection (DSI)	0.0162
E610.001cn	PM	Wood	ESP	0.0192
E706.008	PM	Wood	ESP	0.0192
E265.001	PM	Wood	ESP	0.0196
E530.004	PM	Wood	ESP	0.0196
E617.001	PM	Wood	ESP	0.0211
E610.001cs	PM	Wood	ESP	0.0216
E269.003	PM	Wood	Wet Scrubber	0.0266
E706.006	PM	Wood	ESP	0.027
E706.002	PM	Wood	ESP	0.0273
E738.002	PM	Wood	Fabric Filter	0.0274
E739.003	PM	Wood	Fabric Filter	0.02826
E724.010	PM	Wood	ESP	0.0291
E706.001	PM	Wood	ESP	0.0323
E272.002	PM	Wood	Wet Scrubber	0.0467
E536.001	PM	Wood	ESP	0.0478
E724.001	PM	Wood	ESP	0.0512
E604.001	PM	Wood	Fabric Filter	0.065
E28.007	PM	Wood	Wet Scrubber	0.0658
E740.001	PM	Wood	ESP	0.0675
E853.002	PM	Wood	Wet Scrubber	0.0677
E738.003	PM	Wood	Fabric Filter	0.0702
E606.004	PM	Wood	Wet Scrubber	0.0718
E278.004	PM	Wood	Wet Scrubber	0.0737
E606.001	PM	Wood	Wet Scrubber	0.074
E895.001	PM	Wood	Wet Scrubber	0.0791
E265.003	PM	Wood	ESP	0.0792
E711.001	PM	Wood	Wet Scrubber	0.0797
E606.003	PM	Wood	Wet Scrubber	0.0825
E955.002	PM	Wood	Wet Scrubber	0.0848
E278.003	PM	Wood	Wet Scrubber	0.0894
E530.001	PM	Wood	ESP	0.0912
E606.002	PM	Wood	Wet Scrubber	0.0914
E930.001	PM	Wood	ESP	0.117

Summary of PM Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E533b.005	PM	Wood	No Control	0.132
E651.001	PM	Wood	Cyclone	0.145
E642.002	PM	Wood	Fabric Filter	0.148
E533c.005	PM	Wood	No Control	0.154
E651.003	PM	Wood	Cyclone	0.161
E967.001	PM	Wood	No Control	0.165
E650.005	PM	Wood	Cyclone	0.173
E955.001	PM	Wood	Wet Scrubber	0.178
E274.003	PM	Wood	Cyclone	0.194
E650.001	PM	Wood	Cyclone	0.194
E610.002c	PM	Wood	ESP	0.196
E915.001	PM	Wood	No Control	0.214
E270.004	PM	Wood	Cyclone	0.222
E698.001	PM	Wood	Cyclone	0.239
E263.001	PM	Wood	No Control	0.241
E744.001	PM	Wood	Cyclone	0.247
E533a.005	PM	Wood	No Control	0.251
E603.001	PM	Wood	Cyclone	0.253
E650.003	PM	Wood	Cyclone	0.262
E916.004	PM	Wood	No Control	0.264
E688.001	PM	Wood	ESP	0.272
E263.005	PM	Wood	Cyclone	0.292
E668.001	PM	Wood	No Control	0.308
E949.001	PM	Wood	No Control	0.315
E917.001	PM	Wood	Cyclone	0.348
E720.001	PM	Wood	Cyclone	0.36
E978.001	PM	Wood	Cyclone	0.438
E982.001	PM	Wood	Cyclone	0.441
E669.001	PM	Wood	Cyclone	0.497
E943.001	PM	Wood	Cyclone	0.521
E746.001	PM	Wood	No Control	0.55
E942.001	PM	Wood	No Control	0.611
E673.001	PM	Wood	No Control	0.624
E529.005	PM	Wood	Cyclone	0.628
E271.003	PM	Wood	Cyclone	0.646
E916.001	PM	Wood	No Control	0.799
E610.002u	PM	Wood	No Control	0.864
E758.001	PM	Wood	Cyclone	0.892
E266.001	PM	Wood	Cyclone	0.995
E757.001	PM	Wood	Cyclone	1.05
E610.001u	PM	Wood	No Control	1.19
E275.001	PM	Wood	Cyclone	1.42
E276.005	PM	Wood	Cyclone	1.49
E275.002	PM	Wood	Cyclone	1.5
E670.001	PM	Wood	Cyclone	1.59
E798b.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00184
E1020.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.0019
E795.023	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.002
E645.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.00282
E798a.011	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00299
E765.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00314
E795.006	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00319

Summary of PM Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E765.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00329
E734.003	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00369
E645.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.00424
E797.011	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.00528
E675.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00534
E706.009	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00535
E643.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.00733
E706.010	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00936
E734.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.00947
E779.017	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0105
E783a.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0105
E779.015	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0112
E706.017	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0116
E676.005	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0119
E643.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter	0.0139
E783a.003	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0149
E734.004	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0155
E935.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0155
E697.006c	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Limestone Injection (DSI)	0.0156
E706.013	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0157
E1026.031	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0159
E676.004	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.016
E628.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0165
E767.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0178
E519.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0183
E706.016	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0226
E779.007	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0228
E674.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.024
E779.008	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0251
E706.018	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0258

Summary of PM Emissions Data in Boiler Emissions Database for Solid Fuel Units (8/3/01)

Test ID	Pollutant	Fuel Type	Control Level	Avg Emission Factor (lb/MMBtu)
E797.020	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Fabric Filter/Spray Dryer	0.0284
E935.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0288
E706.015	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0289
E783a.004	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0317
E706.011	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0329
E674.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0442
E854.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.0466
E706.014	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0586
E986.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Venturi Scrubber	0.0646
E855.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Venturi Scrubber	0.0679
E799.008	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.0762
E1026.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.0802
E802.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.0975
E622.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.0982
E799.007	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.0986
E740.003	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.113
E622.002	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.128
E661.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.132
E651.005	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Cyclone	0.138
E706.012	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	ESP	0.145
E955.003	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.151
E955.004	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.151
E802.004	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Wet Scrubber	0.175
E609.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Cyclone/Spray Dryer	0.959
E608.001	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Cyclone/Spray Dryer	1.18
E697.006u	PM	Wood/Other Biomass/NFF Liquid/NFF Solid	Limestone Injection (DSI)	4.39