POST COMBUSTION CONTROLS: PARTICULATE MATTER (PM)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous Coal, PC Boiler with CS-ESP												
Widow	1	3.36	0.44	0.54	4.34	3.11	0.14	1.48	0.78	2.40	44.75	22.95
Widow	2	2.98	0.45	0.51	3.94	2.67	0.01	1.28	0.68	1.97	50.00	26.25
Widow	3	2.87	0.47	0.50	3.83	2.15	0.01	0.65	0.67	1.34	65.11	37.81
Average		3.07	0.45	0.51	4.04	2.64	0.06	1.14	0.71	1.90	53.29	29.00
Presque Isle 5	1	4.56	0.48	0.14	5.17	4.27	0.01	0.72	1.06	1.80	65.29	57.92
Presque Isle 5	2	3.60	0.66	0.57	4.82	3.48	0.00	0.82	1.02	1.84	61.87	47.14
Presque Isle 5	3	5.06	0.45	0.12	5.63	3.93	0.02	0.71	0.91	1.64	70.84	58.19
Average		4.40	0.53	0.27	5.21	3.89	0.01	0.75	1.00	1.76	66.00	54.42
Meramec	1	7.61	0.49	0.14	8.23	8.46	0.00	0.76	0.80	1.56	81.01	81.54
Meramec	2	9.34	1.36	0.44	11.15	10.72	0.01	2.20	1.13	3.35	69.97	68.77
Meramec	3	5.65	1.93	0.62	8.19	5.89	0.00	1.51	0.79	2.30	71.96	60.99
Average		7.53	1.26	0.40	9.19	8.36	0.00	1.49	0.91	2.40	74.32	70.43
Watson	1	3.60	1.22	0.92	5.74	4.70	0.05	2.57	1.87	4.49	21.71	4.39
Watson	2	4.91	1.16	0.25	6.32	5.67	0.05	2.99	0.89	3.94	37.70	30.53
Watson	3	4.64	0.60	0.23	5.46	6.20	0.06	2.92	0.89	3.88	29.04	37.45
Average		4.38	0.99	0.47	5.84	5.52	0.05	2.83	1.22	4.10	29.48	24.13
Brayton 1	1	2.01	3.34	0.32	5.68	6.80	0.77	3.83	0.23	4.84	14.73	28.86
Brayton 1	2	2.61	3.69	0.25	6.55	4.21	0.75	3.19	0.25	4.18	36.11	0.68
Brayton 1	3	2.17	3.50	0.26	5.93	5.01	0.77	3.02	0.24	4.02	32.19	19.64
Average		2.27	3.51	0.28	6.05	5.34	0.76	3.35	0.24	4.35	27.68	16.39
Brayton 3	1	3.14	3.67	0.36	7.17	8.55	0.78	3.18	0.46	4.43	38.21	48.20
Brayton 3	2	1.83	3.14	0.34	5.31	5.30	0.96	2.47	0.37	3.80	28.47	28.27
Brayton 3	3	1.40	3.26	1.60	6.26	5.58	0.01	3.43	1.70	5.15	17.70	7.71
Average		2.12	3.36	0.77	6.25	6.48	0.59	3.03	0.85	4.46	28.13	28.06
Average		3.96	1.68	0.45	6.10	5.37	0.25	2.10	0.82	3.16	46.48	37.07
Minimum		1.40	0.44	0.12	3.83	2.15	0.00	0.65	0.23	1.34	14.73	0.68
Maximum		9.34	3.69	1.60	11.15	10.72	0.96	3.83	1.87	5.15	81.01	81.54
STDEV		2.05	1.34	0.35	1.76	2.21	0.36	1.10	0.45	1.28	20.97	22.65
Bituminous Coal and Pet Coke, PC Boiler with CS-ESP												
Presque Isle 6	1	2.73	0.63	0.17	3.52	2.29	0.06	0.84	0.70	1.60	54.54	30.10
Presque Isle 6	2	2.97	0.72	0.25	3.94	4.34	0.03	1.00	0.93	1.96	50.29	54.87
Presque Isle 6	3	2.96	0.62	0.17	3.75	3.85	0.03	0.73	0.81	1.57	58.00	59.17
Average		2.89	0.65	0.20	3.74	3.49	0.04	0.86	0.81	1.71	54.28	48.05
Minimum		2.73	0.62	0.17	3.52	2.29	0.03	0.73	0.70	1.57	50.29	30.10
Maximum		2.97	0.72	0.25	3.94	4.34	0.06	1.00	0.93	1.96	58.00	59.17
STDEV		0.14	0.06	0.05	0.21	1.07	0.02	0.14	0.11	0.21	3.86	15.69

POST COMBUSTION CONTROLS: PARTICULATE MATTER (PM)

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Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Sub-bituminous Coal, PC Boiler with CS-ESP												
Gibson0300	1	1.94	31.74	4.39	38.08	13.69	0.00	32.03	7.51	39.54	0.00	0.00
Gibson0300	2	1.25	38.06	2.92	42.23	13.33	0.01	32.21	5.80	38.01	9.98	0.00
Gibson0300	3	1.75	44.44	1.65	47.85	13.53	0.01	42.87	4.17	47.05	1.66	0.00
Average		1.65	38.08	2.99	42.72	13.52	0.01	35.70	5.83	41.54	3.88	0.00
Gibson1099	1	5.53	10.33	2.34	18.20	14.00	0.03	6.06	5.03	11.12	38.92	20.62
Gibson1099	2	27.57	3.78	1.25	32.60	15.09	0.05	8.41	5.00	13.46	58.69	10.76
Gibson1099	3	4.60	11.02	1.58	17.20	14.69	0.03	11.03	4.65	15.71	8.68	0.00
Average		12.57	8.38	1.72	22.67	14.59	0.04	8.50	4.90	13.43	35.43	10.46
St Clair	1	2.53	2.29	1.97	6.79	16.26	0.01	1.35	3.01	4.37	35.63	73.13
St Clair	2	2.87	2.13	1.40	6.39	14.36	0.01	1.39	3.74	5.14	19.65	64.24
St Clair	3	0.98	1.94	4.28	7.20	17.71	0.01	1.33	5.24	6.57	8.71	62.89
Average		2.13	2.12	2.55	6.79	16.11	0.01	1.35	4.00	5.36	21.33	66.75
Montrose	1	1.94	1.85	6.00	9.79	44.90	0.03	2.57	5.48	8.08	17.46	82.01
Montrose	2	0.91	2.52	4.93	8.36	51.99	0.02	2.60	5.94	8.56	0.00	83.54
Montrose	3	1.63	2.85	4.68	9.16	47.76	0.02	2.30	5.69	8.01	12.54	83.22
Average		1.49	2.41	5.20	9.10	48.21	0.02	2.49	5.70	8.22	10.00	82.92
Neal	1	0.17	4.78	6.34	11.29	8.96	0.03	4.07	5.47	9.58	15.18	0.00
Neal	2	0.07	4.35	8.24	12.66	7.82	0.06	4.60	6.87	11.53	8.89	0.00
Neal	3	0.02	3.53	3.77	7.32	10.19	0.02	4.74	6.39	11.15	0.00	0.00
Average		0.09	4.22	6.12	10.42	8.99	0.04	4.47	6.24	10.75	12.04	0.00
Newton	1	0.04	0.58	9.70	10.32	9.07	0.00	2.26	8.07	10.33	-0.10	-14.00
Newton	2	0.04	0.63	9.85	10.52	8.05	0.00	1.66	7.13	8.80	16.33	-9.28
Newton	3	0.08	1.65	9.26	11.00	9.34	0.00	2.04	8.03	10.07	8.46	-7.82
Average		0.05	0.95	9.61	10.61	8.82	0.00	1.99	7.74	9.73	8.23	-10.36
Average		3.00	9.36	4.70	17.05	18.37	0.02	9.08	5.74	14.84	14.48	24.96
Minimum		0.02	0.58	1.25	6.39	7.82	0.00	1.33	3.01	4.37	0.00	-14.00
Maximum		27.57	44.44	9.85	47.85	51.99	0.06	42.87	8.07	47.05	58.69	83.54
STDEV		6.33	13.69	2.96	13.38	14.09	0.02	12.70	1.41	12.69	15.72	37.36

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Lignite, PC Boiler with CS-ESP												
Stanton 1	1	0.04	0.15	11.96	12.15	31.51	0.04	0.42	11.16	11.62	4.42	63.13
Stanton 1	2	0.13	0.13	10.81	11.06	41.24	0.02	0.43	11.68	12.14	0.00	70.56
Stanton 1	3	0.08	0.05	11.66	11.79	19.94	0.01	0.45	11.97	12.43	0.00	37.67
Average		0.08	0.11	11.48	11.67	30.89	0.02	0.44	11.60	12.06	1.47	57.12
Minimum		0.04	0.05	10.81	11.06	19.94	0.01	0.42	11.16	11.62	0.00	37.67
Maximum		0.13	0.15	11.96	12.15	41.24	0.04	0.45	11.97	12.43	4.42	70.56
STDEV		0.04	0.05	0.60	0.55	10.66	0.02	0.02	0.41	0.41	2.55	17.25
Lignite, Cyclone Boiler with CS-ESP												
Leland	1	0.56	0.23	3.30	4.09	5.63	0.00	0.82	4.04	4.86	0.00	13.66
Leland	2	0.26	0.46	8.80	9.51	10.18	0.00	1.09	5.26	6.35	33.26	37.64
Leland	3	2.85	0.81	4.77	8.43	7.94	0.00	1.60	4.59	6.20	26.48	21.94
Average		1.22	0.50	5.62	7.34	7.92	0.00	1.17	4.63	5.80	19.91	24.41
Minimum		0.26	0.23	3.30	4.09	5.63	0.00	0.82	4.04	4.86	0.00	13.66
Maximum		2.85	0.81	8.80	9.51	10.18	0.00	1.60	5.26	6.35	33.26	37.64
STDEV		1.42	0.29	2.85	2.87	2.28	0.00	0.40	0.61	0.82	17.58	12.18
Bituminous Coal, PC Boiler with HS-ESP												
Cholla 3	1	0.07	0.37	1.93	2.37	51.98	0.01	0.51	1.87	2.40	0.00	95.39
Cholla 3	2	0.51	0.32	0.46	1.28	54.43	0.01	0.01	1.00	1.02	20.42	98.12
Cholla 3	3	0.45	0.43	0.61	1.49	40.48	0.01	0.39	1.27	1.67	0.00	95.87
Average		0.34	0.37	1.00	1.71	48.96	0.01	0.30	1.38	1.70	6.81	289.39
Cliffside	1	0.17	3.72	3.31	7.20	5.43	0.41	2.79	3.95	7.14	0.86	0.00
Cliffside	2	0.09	3.54	3.33	6.95	3.84	0.10	2.27	1.95	4.31	38.00	0.00
Cliffside	3	0.08	4.15	7.27	11.49	8.80	0.10	3.97	2.54	6.61	42.51	24.94
Average		0.11	3.80	4.63	8.55	6.02	0.20	3.01	2.81	6.02	27.12	8.31
Gaston	1	4.28	0.86	2.64	7.77	5.20	0.74	4.70	2.34	7.78	0.00	0.00
Gaston	2	2.57	0.71	3.56	6.84	6.27	0.40	5.80	3.47	9.66	0.00	0.00
Gaston	3	0.43	3.94	2.83	7.20	4.70	1.15	4.73	2.04	7.92	0.00	0.00
Average		2.42	1.84	3.01	7.27	5.39	0.76	5.08	2.62	8.46	0.00	0.00
Dunkirk	1	0.09	8.56	2.82	11.47	10.06	0.21	6.89	3.67	10.77	6.08	0.00
Dunkirk	2	0.01	8.91	1.43	10.36	10.30	0.08	4.57	2.46	7.12	31.27	30.90
Dunkirk	3	0.01	9.15	3.20	12.36	9.65	0.03	6.40	3.82	10.25	17.08	0.00
Average		0.04	8.87	2.48	11.40	10.00	0.11	5.95	3.32	9.38	18.14	10.30
Average		0.73	3.72	2.78	7.23	17.60	0.27	3.59	2.53	6.39	12.02	28.77
Minimum		0.01	0.32	0.46	1.28	3.84	0.01	0.01	1.00	1.02	0.00	0.00
Maximum		4.28	9.15	7.27	12.36	54.43	1.15	6.89	3.95	10.77	42.51	98.12
STDEV		1.32	3.45	1.76	3.87	19.30	0.36	2.38	0.99	3.32	16.07	42.17

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Sub-bituminous Coal, PC Boiler with HS-ESP												
Columbia	1	0.01	0.93	14.27	15.22	9.85	0.00	2.74	11.71	14.45	5.02	0.00
Columbia	2	0.01	5.82	13.40	19.24	10.30	0.00	2.16	11.82	13.98	27.34	0.00
Columbia	3	0.01	0.46	14.65	15.12	10.35	0.00	2.65	12.68	15.34	0.00	0.00
Average		0.01	2.41	14.11	16.52	10.17	0.00	2.51	12.07	14.59	10.79	0.00
Clifty	3	0.01	3.41	11.46	14.87	7.84	0.07	5.50	3.80	9.37	36.99	0.00
Clifty	1	0.40	2.35	11.17	13.92	8.02	0.70	3.60	4.67	8.96	35.58	0.00
Clifty	2	0.02	3.58	11.13	14.73	7.66	0.01	5.04	5.34	10.39	29.51	0.00
Average		0.14	3.11	11.25	14.51	7.84	0.26	4.71	4.60	9.57	34.03	0.00
Platte	1	0.03	4.15	9.82	14.00	11.10	0.01	1.45	8.76	10.23	26.93	7.88
Platte	2	0.02	1.92	11.31	13.25	9.65	0.01	0.78	16.86	17.65	0.00	0.00
Platte	3	0.03	4.39	11.63	16.04	6.05	0.01	1.51	14.90	16.43	0.00	0.00
Average		0.03	3.48	10.92	14.43	8.93	0.01	1.25	13.51	14.77	8.98	2.63
Presque Isle 9	1	0.04	0.14	6.70	6.89	9.86	0.00	0.57	6.30	6.88	0.10	30.22
Presque Isle 9	2	0.01	0.14	6.89	7.05	8.92	0.00	0.67	6.74	7.41	0.00	16.87
Presque Isle 9	3	0.01	0.10	6.43	6.55	9.91	0.00	0.54	6.38	6.92	0.00	30.11
Average		0.02	0.13	6.68	6.83	9.56	0.00	0.59	6.47	7.07	0.03	25.73
Average		0.05	2.28	10.74	13.07	9.13	0.07	2.27	9.16	11.50	13.46	7.09
Minimum		0.01	0.10	6.43	6.55	6.05	0.00	0.54	3.80	6.88	0.00	0.00
Maximum		0.40	5.82	14.65	19.24	11.10	0.70	5.50	16.86	17.65	36.99	30.22
STDEV		0.11	1.97	2.82	4.05	1.45	0.20	1.71	4.30	3.87	16.04	11.92
Sub-bituminous, Cyclone Boiler with HS-ESP												
Nelson	1	0.01	0.49	3.20	3.69	6.62	0.10	0.26	3.33	3.69	0.13	44.27
Nelson	2	0.01	0.24	2.19	2.43	6.47	0.04	0.16	2.40	2.60	0.00	59.83
Nelson	3	0.01	0.12	2.06	2.18	6.09	0.04	0.25	2.44	2.73	0.00	55.22
Average		0.01	0.28	2.48	2.77	6.39	0.06	0.22	2.72	3.00	0.04	53.11
Minimum		0.01	0.12	2.06	2.18	6.09	0.04	0.16	2.40	2.60	0.00	44.27
Maximum		0.01	0.49	3.20	3.69	6.62	0.10	0.26	3.33	3.69	0.13	59.83
STDEV		0.00	0.19	0.62	0.81	0.27	0.03	0.05	0.53	0.60	0.07	7.99

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Bituminous Coal, PC Boiler with FF												
Sammis	1	11.78	0.48	0.61	12.86	6.64	0.01	0.49	0.61	1.11	91.37	83.28
Sammis	2	15.35	0.50	0.54	16.38	9.54	0.01	0.58	0.55	1.14	93.04	88.05
Sammis	3	14.62	0.51	0.52	15.65	9.55	0.02	0.51	0.57	1.10	92.97	88.48
Average		13.92	0.50	0.55	14.97	8.58	0.01	0.53	0.57	1.12	92.46	86.60
Shawnee	1	3.18	0.58	0.72	4.48	2.39	0.01	0.63	0.84	1.49	66.73	37.66
Shawnee	2	3.01	0.98	0.66	4.65	4.29	0.02	0.61	0.75	1.37	70.51	68.03
Shawnee	3	3.44	0.57	0.67	4.68	2.66	0.01	0.60	0.68	1.28	72.62	51.82
Average		3.21	0.71	0.68	4.61	3.11	0.01	0.61	0.76	1.38	69.95	52.50
Valley is considered an outlyer and has not been included in the average. See below for Valley data.												
Valmont	1	0.92	0.12	0.18	1.22	0.80	0.00	0.12	0.04	0.16	86.98	80.04
Valmont	2	0.92	0.07	0.14	1.12	0.44	0.00	0.10	0.02	0.12	89.53	73.26
Valmont	3	1.23	0.10	0.17	1.51	0.60	0.00	0.21	0.03	0.24	84.15	60.16
Average		1.02	0.10	0.17	1.29	0.61	0.00	0.14	0.03	0.17	86.89	71.16
Average		6.05	0.43	0.47	6.95	4.10	0.01	0.43	0.45	0.89	83.10	70.09
Minimum		0.92	0.07	0.14	1.12	0.44	0.00	0.10	0.02	0.12	66.73	37.66
Maximum		15.35	0.98	0.72	16.38	9.55	0.02	0.63	0.84	1.49	93.04	88.48
STDEV		6.05	0.30	0.24	6.25	3.66	0.01	0.22	0.33	0.55	10.36	17.44
Valley	1	0.04	1.44	1.21	2.69	0.95	0.11	2.02	0.41	2.54	5.67	-165.84
Valley	2	0.05	1.49	0.45	1.99	1.33	0.04	1.55	0.42	2.00	-0.70	-50.84
Valley	3	0.04	1.22	0.67	1.92	1.52	0.00	1.89	0.52	2.41	-25.15	-58.75
Sub-bituminous Coal, PC Boiler with CS-FF												
Boswell 2	2	1.99	1.26	1.46	4.71	4.35	0.00	0.35	0.23	0.59	87.45	86.43
Boswell 2	3	0.83	1.15	2.49	4.46	5.20	0.00	0.58	0.12	0.70	84.32	86.54
Boswell 2	1	2.75	1.81	1.60	6.16	8.35	0.07	1.26	0.14	1.47	76.06	82.34
Average		1.85	1.41	1.85	5.11	5.97	0.03	0.73	0.16	0.92	82.61	85.10
Comanche	1	1.81	3.93	5.71	11.46	15.91	0.00	3.33	0.27	3.60	68.58	77.37
Comanche	3	5.27	1.28	3.67	10.22	14.24	0.00	3.20	0.33	3.52	65.52	75.26
Comanche	2	2.59	1.45	5.77	9.82	17.08	0.00	3.99	0.65	4.65	52.67	72.80
Average		3.23	2.22	5.05	10.50	15.74	0.00	3.51	0.42	3.92	62.26	75.14
Average		2.54	1.81	3.45	7.80	10.86	0.01	2.12	0.29	2.42	72.43	80.12
Minimum		0.83	1.15	1.46	4.46	4.35	0.00	0.35	0.12	0.59	52.67	72.80
Maximum		5.27	3.93	5.77	11.46	17.08	0.07	3.99	0.65	4.65	87.45	86.54
STDEV		1.50	1.06	1.94	3.06	5.59	0.03	1.57	0.20	1.72	12.91	5.85

POST COMBUSTION CONTROLS: PARTICULATE MATTER (PM)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous Coal, PC Boiler with PM Scrubber												
Cholla 2	1	0.42	0.97	4.68	6.07	6.99	0.15	0.21	3.93	4.29	29.30	38.59
Cholla 2	2	1.11	0.93	2.62	4.66	6.37	0.19	0.14	4.67	5.01	0.00	21.38
Cholla 2	3	0.41	2.06	2.99	5.46	5.09	0.11	0.14	4.22	4.46	18.29	12.27
Average		0.65	1.32	3.43	5.40	6.15	0.15	0.16	4.27	4.59	15.86	24.08
Mansfield	1	0.27	8.65	1.58	10.50	10.93	0.04	1.89	7.01	8.95	14.81	18.11
Mansfield	2	0.73	9.84	2.08	12.65	8.93	0.06	2.73	7.96	10.76	14.94	0.00
Mansfield	3	0.27	8.34	1.70	10.31	11.82	0.04	1.22	8.29	9.55	7.42	19.25
Average		0.42	8.94	1.79	11.15	10.56	0.05	1.95	7.76	9.75	12.39	12.45
Average		0.54	5.13	2.61	8.28	8.35	0.10	1.06	6.02	7.17	14.13	18.27
Minimum		0.27	0.93	1.58	4.66	5.09	0.04	0.14	3.93	4.29	0.00	0.00
Maximum		1.11	9.84	4.68	12.65	11.82	0.19	2.73	8.29	10.76	29.30	38.59
STDEV		0.33	4.22	1.15	3.29	2.66	0.06	1.09	1.97	2.90	9.93	12.60
Sub-bituminous Coal, PC Boiler with PM Scrubber												
Boswell 3	1	0.01	0.25	6.06	6.32	5.00	0.00	0.05	5.82	5.87	7.16	0.00
Boswell 3	2	0.01	0.31	6.00	6.32	6.38	0.00	0.06	5.39	5.45	13.81	14.54
Boswell 3	3	0.06	0.62	5.21	5.89	5.79	0.00	0.06	5.51	5.58	5.25	3.60
Average		0.03	0.39	5.76	6.18	5.72	0.00	0.06	5.57	5.63	8.74	6.05
Boswell 4	1	0.11	0.33	5.05	5.48	6.98	0.02	0.10	5.53	5.65	0.00	19.00
Boswell 4	2	2.98	1.07	1.47	5.53	6.63	0.20	0.44	5.89	6.53	0.00	1.41
Boswell 4	3	2.75	0.55	1.16	4.45	7.93	0.28	0.59	5.57	6.43	0.00	18.91
Average		1.95	0.65	2.56	5.15	7.18	0.17	0.38	5.66	6.21	0.00	13.11
Colstrip	1	1.78	2.29	1.08	5.15	7.63	0.05	0.42	9.13	9.60	0.00	0.00
Colstrip	2	1.94	2.37	6.37	10.68	7.98	0.02	0.45	11.03	11.51	0.00	0.00
Colstrip	3	1.63	2.86	5.39	9.88	7.93	0.02	0.39	2.13	2.54	74.27	67.94
Average		1.78	2.51	4.28	8.57	7.85	0.03	0.42	7.43	7.88	24.76	22.65
Lawrence	1	0.23	1.65	4.99	6.86	6.24	0.01	0.49	6.37	6.87	0.00	0.00
Lawrence	2	0.53	0.63	4.41	5.58	5.47	0.08	0.53	6.71	7.32	0.00	0.00
Lawrence	3	0.24	0.65	4.96	5.86	6.03	0.09	0.51	6.20	6.81	0.00	0.00
Average		0.33	0.98	4.79	6.10	5.91	0.06	0.51	6.42	7.00	0.00	0.00
Average		1.02	1.13	4.35	6.50	6.66	0.07	0.34	6.27	6.68	8.37	10.45
Minimum		0.01	0.25	1.08	4.45	5.00	0.00	0.05	2.13	2.54	0.00	0.00
Maximum		2.98	2.86	6.37	10.68	7.98	0.28	0.59	11.03	11.51	74.27	67.94
STDEV		1.12	0.92	1.95	1.88	1.03	0.09	0.21	2.15	2.21	21.20	19.66

POST COMBUSTION CONTROLS: PARTICULATE MATTER (PM)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Lignite, PC Boiler with PM Scrubber												
Lewis	1	1.15	16.47	11.65	29.27	15.33	0.06	0.50	13.86	14.42	50.75	5.98
Lewis	2	1.68	13.64	8.43	23.75	15.54	0.00	0.35	14.19	14.55	38.74	6.41
Lewis	3	1.41	6.28	10.20	17.89	18.96	0.00	0.50	15.81	16.31	8.81	13.94
Average		1.41	12.13	10.09	23.64	16.61	0.02	0.45	14.62	15.09	32.77	8.78
Minimum		1.15	6.28	8.43	17.89	15.33	0.00	0.35	13.86	14.42	8.81	5.98
Maximum		1.68	16.47	11.65	29.27	18.96	0.06	0.50	15.81	16.31	50.75	13.94
STDEV		0.27	5.26	1.62	5.69	2.03	0.03	0.08	1.05	1.06	21.60	4.48
Bituminous, Cyclone Boiler with PM Scrubber												
Lacygne	1	6.70	3.99	1.30	12.00	no inlet flow	0.04	0.44	8.74	9.22	23.18	no inlet flow
Lacygne	2	6.52	3.34	0.60	10.46	no inlet flow	0.05	0.43	7.41	7.89	24.53	no inlet flow
Lacygne	3	5.98	0.59	0.61	7.18	no inlet flow	0.09	0.41	5.10	5.59	22.17	no inlet flow
Average		6.40	2.64	0.84	9.88	no inlet flow	0.06	0.43	7.08	7.57	23.29	no inlet flow
Minimum		5.98	0.59	0.60	7.18	no inlet flow	0.04	0.41	5.10	5.59	22.17	no inlet flow
Maximum		6.70	3.99	1.30	12.00	no inlet flow	0.09	0.44	8.74	9.22	24.53	no inlet flow
STDEV		0.37	1.80	0.41	2.46	no inlet flow	0.03	0.02	1.84	1.84	1.18	no inlet flow
Lignite, PC Boiler with CS-ESP and FF (COHPAC)												
Bigbrown	1	2.59	8.35	31.24	42.18	50.86	0.01	16.58	25.20	41.80	0.92	17.82
Bigbrown	2	0.54	10.37	27.31	38.21	49.95	0.01	17.66	25.47	43.13	0.00	13.65
Bigbrown	3	0.14	14.14	21.93	36.21	46.92	0.01	18.49	22.12	40.62	0.00	13.42
Average		1.09	10.95	26.83	38.87	49.24	0.01	17.58	24.26	41.85	0.31	14.96
Monticello 1-2	1	15.97	22.54	8.82	47.34	53.79	0.17	32.01	1.58	33.76	28.69	37.23
Monticello 1-2	2	0.37	14.82	46.29	61.48	54.09	0.11	78.08	14.93	93.11	0.00	0.00
Monticello 1-2	3	7.97	22.74	44.19	74.90	84.65	0.08	86.89	18.51	105.48	0.00	0.00
Average		8.10	20.03	33.10	61.24	64.18	0.12	65.66	11.67	77.45	9.56	12.41
Average		4.60	15.49	29.96	50.05	56.71	0.07	41.62	17.97	59.65	4.93	13.69
Minimum		0.14	8.35	8.82	36.21	46.92	0.01	16.58	1.58	33.76	0.00	0.00
Maximum		15.97	22.74	46.29	74.90	84.65	0.17	86.89	25.47	105.48	28.69	37.23
STDEV		6.31	6.03	14.07	15.16	13.94	0.07	32.27	8.99	31.13	11.64	13.76
Lignite, Cyclone Boiler with Mechanical Collector												
Bayfront	1	0.76	0.78	2.17	3.70	3.58	1.19	0.60	1.91	3.69	0.34	0.00
Bayfront	2	1.08	0.67	1.94	3.69	3.01	0.86	2.75	1.80	5.40	0.00	0.00
Bayfront	3	0.09	0.77	1.74	2.60	3.36	0.48	3.57	1.78	5.84	0.00	0.00
Average		0.64	0.74	1.95	3.33	3.32	0.84	2.30	1.83	4.98	0.11	0.00
Minimum		0.09	0.67	1.74	2.60	3.01	0.48	0.60	1.78	3.69	0.00	0.00
Maximum		1.08	0.78	2.17	3.70	3.58	1.19	3.57	1.91	5.84	0.34	0.00
STDEV		0.50	0.06	0.21	0.63	0.29	0.35	1.53	0.07	1.14	0.19	0.00

POST COMBUSTION CONTROLS: DRY SCRUBBERS (PM AND SO2)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous Coal, PC Boiler with SDA/FF												
Logan	1	12.87	7.22	0.21	20.31	18.28	0.02	0.08	0.16	0.26	98.71	98.57
Logan	2	12.74	4.36	0.35	17.46	18.14	0.02	0.13	0.17	0.32	98.16	98.23
Logan	3	12.45	4.59	0.25	17.29	17.51	0.01	0.04	0.17	0.22	98.72	98.74
Average		12.69	5.39	0.27	18.35	17.98	0.02	0.09	0.16	0.27	98.53	98.51
Mecklenburg	1	11.34	3.40	6.16	20.91	11.52	0.00	0.07	0.09	0.16	99.23	98.60
Mecklenburg	2	5.66	4.21	0.02	9.89	13.28	0.00	0.07	0.23	0.31	96.91	97.70
Mecklenburg	3	6.90	3.04	0.02	9.96	11.50	0.00	0.01	0.23	0.24	97.60	97.92
Average		7.97	3.55	2.07	13.59	12.10	0.00	0.05	0.18	0.24	97.91	98.07
Average		10.33	4.47	1.17	15.97	15.04	0.01	0.07	0.17	0.25	98.22	98.29
Minimum		5.66	3.04	0.02	9.89	11.50	0.00	0.01	0.09	0.16	96.91	97.70
Maximum		12.87	7.22	6.16	20.91	18.28	0.02	0.13	0.23	0.32	99.23	98.74
STDEV		3.20	1.47	2.45	4.90	3.29	0.01	0.04	0.05	0.06	0.85	0.42
Sub-bituminous Coal, PC Boiler with SDA/FF												
Craig 3	1	0.57	0.65	0.20	1.42	1.20	0.00	0.04	0.90	0.94	33.79	21.49
Craig 3	2	0.92	0.50	0.17	1.60	1.06	0.00	0.04	0.89	0.93	41.83	11.88
Craig 3	3	0.90	0.23	0.12	1.25	0.93	0.00	0.03	0.82	0.86	31.67	7.38
Average		0.80	0.46	0.16	1.42	1.06	0.00	0.04	0.87	0.91	35.76	13.58
Rawhide	1	0.25	1.38	12.46	14.09	8.09	0.12	0.76	10.80	11.68	17.16	0.00
Rawhide	2	1.92	0.83	12.85	15.59	7.33	0.01	0.69	9.91	10.60	32.03	0.00
Rawhide	3	3.76	0.46	14.79	19.01	9.24	0.03	0.98	9.00	10.01	47.31	0.00
Average		1.98	0.89	13.37	16.23	8.22	0.05	0.81	9.90	10.76	32.16	0.00
Sherburne	1	0.03	0.53	10.92	11.48	8.29	0.12	0.20	8.42	8.74	23.81	0.00
Sherburne	2	0.03	0.23	10.92	11.18	8.27	0.14	0.18	12.09	12.40	0.00	0.00
Sherburne	3	0.03	0.19	10.24	10.46	7.73	0.27	0.24	9.84	10.35	1.05	0.00
Average		0.03	0.32	10.69	11.04	8.10	0.18	0.20	10.12	10.50	8.29	0.00
Average		0.93	0.56	8.07	9.56	5.79	0.08	0.35	6.96	7.39	25.40	4.53
Minimum		0.03	0.19	0.12	1.25	0.93	0.00	0.03	0.82	0.86	0.00	0.00
Maximum		3.76	1.38	14.79	19.01	9.24	0.27	0.98	12.09	12.40	47.31	21.49
STDEV		1.23	0.37	6.08	6.63	3.59	0.09	0.36	4.68	4.97	16.63	7.69

POST COMBUSTION CONTROLS: DRY FGD SCRUBBERS (PM and SO2)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Lignite, PC Boiler with SDA/FF												
Antelope	1	0.16	0.38	7.80	8.34	13.85	0.01	0.25	0.19	0.46	94.53	96.71
Antelope	2	0.21	0.42	7.82	8.45	16.03	0.02	0.79	8.16	8.98	0.00	44.01
Antelope	3	0.16	0.16	7.67	8.00	12.50	0.02	0.33	6.97	7.32	8.49	41.45
Average		0.18	0.32	7.77	8.26	14.13	0.02	0.46	5.11	5.58	34.34	60.73
Stanton 10	1	0.22	0.24	10.23	10.70	12.82	0.02	0.40	10.14	10.56	1.24	17.63
Stanton 10	2	0.27	0.36	9.86	10.49	15.63	0.01	0.17	10.58	10.76	0.00	31.15
Stanton 10	3	0.50	0.69	9.45	10.64	9.45	0.01	0.01	10.81	10.83	0.00	0.00
Average		0.33	0.43	9.85	10.61	12.63	0.01	0.19	10.51	10.72	0.41	16.26
Average		0.25	0.38	8.81	9.44	13.38	0.02	0.32	7.81	8.15	17.38	38.49
Minimum		0.16	0.16	7.67	8.00	9.45	0.01	0.01	0.19	0.46	0.00	0.00
Maximum		0.50	0.69	10.23	10.70	16.03	0.02	0.79	10.81	10.83	94.53	96.71
STDEV		0.13	0.18	1.17	1.30	2.40	0.01	0.27	4.02	4.01	37.94	32.86
Lignite, Cyclone Boiler with SDA/FF												
Coyote	1	0.69	1.62	13.68	15.99	10.51	0.08	0.04	13.97	14.10	11.81	0.00
Coyote	2	1.18	2.98	13.90	18.06	18.55	0.14	0.24	15.74	16.13	10.68	13.08
Coyote	3	1.69	3.07	14.91	19.66	11.39	0.08	0.44	18.06	18.58	5.48	0.00
Average		1.18	2.55	14.16	17.90	13.48	0.10	0.24	15.93	16.27	9.32	4.36
Minimum		0.69	1.62	13.68	15.99	10.51	0.08	0.04	13.97	14.10	5.48	0.00
Maximum		1.69	3.07	14.91	19.66	18.55	0.14	0.44	18.06	18.58	11.81	13.08
STDEV		0.50	0.81	0.65	1.84	4.41	0.04	0.20	2.05	2.24	3.38	7.55

POST COMBUSTION CONTROLS: DRY FGD SCRUBBERS (PM and SO2)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Sub-bituminous Coal, PC Boiler with CS-ESP/SDA												
GRDA	1	0.13	4.42	7.77	12.31	11.22	0.01	1.55	5.58	7.13	42.06	36.42
GRDA	2	0.53	2.97	6.50	9.99	10.73	0.01	1.28	11.12	12.42	0.00	0.00
GRDA	3	0.51	8.78	3.71	13.01	12.24	0.01	0.34	5.41	5.76	55.72	52.94
Average		0.39	5.39	5.99	11.77	11.40	0.01	1.06	7.37	8.44	32.59	29.79
Laramie 3	1	0.03	0.22	0.63	0.88	15.03	0.03	0.10	3.87	4.00	0.00	73.40
Laramie 3	2	1.69	0.52	8.53	10.75	17.67	0.03	0.04	4.52	4.58	57.35	74.05
Laramie 3	3	4.55	0.44	9.28	14.27	14.94	0.03	0.04	5.27	5.35	62.53	64.22
Average		2.09	0.39	6.15	8.63	15.88	0.03	0.06	4.56	4.64	39.96	70.56
Wyodak	1	2.49	3.88	11.63	18.00	4.46	0.05	0.07	9.97	10.09	43.95	0.00
Wyodak	2	3.05	4.71	9.42	17.17	6.41	0.05	0.17	10.11	10.32	39.87	0.00
Wyodak	3	2.25	3.57	11.51	17.34	8.17	0.05	0.25	10.11	10.41	39.99	0.00
Average		2.60	4.05	10.85	17.50	6.34	0.05	0.16	10.06	10.27	41.27	0.00
Average		1.69	3.28	7.67	12.64	11.21	0.03	0.43	7.33	7.78	37.94	33.45
Minimum		0.03	0.22	0.63	0.88	4.46	0.01	0.04	3.87	4.00	0.00	0.00
Maximum		4.55	8.78	11.63	18.00	17.67	0.05	1.55	11.12	12.42	62.53	74.05
STDEV		1.54	2.72	3.60	5.28	4.32	0.02	0.57	2.91	3.06	23.01	33.64
Bituminous Coal, PC Boiler with DSI and CS-ESP												
Washington	1	0.00	4.33	11.63	15.97	13.01	0.00	6.41	3.06	9.47	40.68	27.22
Washington	2	0.00	7.75	11.02	18.77	13.36	0.00	5.84	3.05	8.90	52.61	33.42
Washington	3	0.00	6.40	9.95	16.36	13.33	0.04	6.52	3.04	9.59	41.37	28.06
Average		0.00	6.16	10.86	17.03	13.24	0.02	6.26	3.05	9.32	44.89	29.56
Minimum		0.00	4.33	9.95	15.97	13.01	0.00	5.84	3.04	8.90	40.68	27.22
Maximum		0.00	7.75	11.63	18.77	13.36	0.04	6.52	3.06	9.59	52.61	33.42
STDEV		0.00	1.72	0.85	1.52	0.19	0.02	0.36	0.01	0.37	6.70	3.36

POST COMBUSTION CONTROLS: PC BOILERS with NOX and OTHER CONTROLS

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous Coal, PC Boiler with SCR and SDA/FF												
SEI	1	13.48	0.30	0.14	13.92	11.79	0.01	0.34	0.13	0.48	96.56	95.94
SEI	2	9.47	0.25	0.18	9.90	11.74	0.01	0.09	0.12	0.22	97.79	98.13
SEI	3	12.01	0.25	0.16	12.42	11.97	0.02	0.08	0.11	0.21	98.34	98.28
Average		11.66	0.26	0.16	12.08	11.83	0.01	0.17	0.12	0.30	97.56	97.45
Minimum		9.47	0.25	0.14	9.90	11.74	0.01	0.08	0.11	0.21	96.56	95.94
Maximum		13.48	0.30	0.18	13.92	11.97	0.02	0.34	0.13	0.48	98.34	98.28
STDEV		2.03	0.03	0.02	2.03	0.12	0.00	0.15	0.01	0.15	0.91	1.31
Bituminous Coal, PC Boiler with SNCR and CS-ESP												
Salem	1	4.12	0.32	0.32	4.76	3.44	0.07	0.28	0.27	0.62	87.07	82.11
Salem	2	4.09	0.04	0.16	4.29	2.35	0.10	0.07	0.15	0.32	92.57	86.40
Salem	3	3.96	0.06	0.15	4.17	3.27	0.08	0.08	0.14	0.29	93.06	91.16
Average		4.06	0.14	0.21	4.41	3.02	0.08	0.14	0.19	0.41	90.90	86.55
Minimum		3.96	0.04	0.15	4.17	2.35	0.07	0.07	0.14	0.29	87.07	82.11
Maximum		4.12	0.32	0.32	4.76	3.44	0.10	0.28	0.27	0.62	93.06	91.16
STDEV		0.08	0.16	0.09	0.31	0.59	0.02	0.12	0.07	0.18	3.32	4.52

POST COMBUSTION CONTROLS: WET FGD SCRUBBERS (PM AND SO2)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous Coal, PC Boiler with CS-ESP and wet FGD scrubber												
Milliken 2	2	0.00	6.40	2.58	8.98	11.87	0.00	0.18	2.70	2.88	83.35	75.73
Milliken 2	1	0.00	5.87	2.24	8.11	10.70	0.00	0.36	2.73	3.09	80.23	71.11
Milliken 2	3	0.00	5.55	2.95	8.50	10.80	0.00	0.18	3.08	3.26	80.10	69.79
Average		0.00	5.94	2.59	8.53	11.12	0.00	0.24	2.83	3.08	81.23	72.21
Minimum		0.00	5.55	2.24	8.11	10.70	0.00	0.18	2.70	2.88	80.10	69.79
Maximum		0.00	6.40	2.95	8.98	11.87	0.00	0.36	3.08	3.26	83.35	75.73
STDEV		0.00	0.43	0.36	0.44	0.65	0.00	0.10	0.21	0.19	1.84	3.12
Bituminous, Cyclone Boiler with CS-ESP and wet FGD scrubber												
Bailly	1	0.04	3.18	2.57	5.79	4.41	0.00	0.36	2.85	3.22	56.12	27.09
Bailly	2	0.04	2.37	2.95	5.36	5.20	0.00	0.31	2.62	2.93	56.80	43.53
Bailly	3	0.09	3.01	2.58	5.68	4.08	0.00	0.39	2.78	3.17	56.00	22.31
Average		0.06	2.85	2.70	5.61	4.56	0.00	0.35	2.75	3.11	56.30	30.97
Minimum		0.04	2.37	2.57	5.36	4.08	0.00	0.31	2.62	2.93	56.00	22.31
Maximum		0.09	3.18	2.95	5.79	5.20	0.00	0.39	2.85	3.22	56.80	43.53
STDEV		0.03	0.43	0.22	0.22	0.57	0.00	0.04	0.12	0.15	0.44	11.13
Bituminous Coal, PC Boiler with HS-ESP and wet FGD scrubber												
Morrow	1	0.05	10.80	4.41	15.27	5.48	0.05	2.06	5.00	7.11	58.89	0.00
Morrow	2	0.01	8.31	4.10	12.42	5.42	0.03	1.79	4.50	6.31	55.10	0.00
Morrow	3	0.03	6.98	3.32	10.33	5.38	0.04	1.12	4.55	5.71	51.15	0.00
Average		0.03	8.70	3.94	12.67	5.43	0.04	1.65	4.68	6.38	55.05	0.00
Minimum		0.01	6.98	3.32	10.33	5.38	0.03	1.12	4.50	5.71	51.15	0.00
Maximum		0.05	10.80	4.41	15.27	5.48	0.05	2.06	5.00	7.11	58.89	0.00
STDEV		0.02	1.94	0.56	2.48	0.05	0.01	0.48	0.27	0.70	3.87	0.00
Sub-bituminous Coal, PC Boiler with CS-ESP and wet FGD scrubber												
Bridger	1	0.05	2.49	5.21	7.74	no coal flow	0.06	0.25	6.63	6.95	21.97	no coal flow
Bridger	2	0.44	2.04	5.64	8.12	no coal flow	0.05	0.29	6.51	6.85	26.60	no coal flow
Bridger	3	0.07	1.78	4.50	6.35	no coal flow	0.03	0.20	5.92	6.15	15.65	no coal flow
Average		0.19	2.10	5.12	7.41	not included	0.05	0.25	6.36	6.65	21.41	Not Included
Laramie 1	1	0.25	3.14	7.52	10.91	13.52	0.02	0.29	4.86	5.18	58.73	61.73
Laramie 1	2	0.04	2.16	8.35	10.55	15.45	0.00	0.12	5.73	5.85	51.74	62.14
Laramie 1	3	0.02	3.08	7.53	10.63	15.71	0.01	0.03	4.48	4.52	63.05	71.26
Average		0.10	2.79	7.80	10.70	14.90	0.01	0.15	5.02	5.18	57.84	65.04
Sam Seymour	1	0.03	3.00	9.10	12.13	60.48	0.06	0.24	12.25	12.54	10.01	79.26
Sam Seymour	2	0.01	4.08	13.10	17.19	43.20	0.11	0.29	13.33	13.74	30.46	68.21
Sam Seymour	3	0.01	5.39	11.96	17.35	51.04	0.06	0.35	11.99	12.39	37.85	75.72
Average		0.01	4.16	11.38	15.56	51.58	0.07	0.29	12.53	12.89	26.11	74.40
Average		0.10	3.02	8.10	11.22	33.24	0.04	0.23	7.97	8.24	35.12	69.72
Minimum		0.01	1.78	4.50	6.35	13.52	0.00	0.03	4.48	4.52	10.01	61.73
Maximum		0.44	5.39	13.10	17.35	60.48	0.11	0.35	13.33	13.74	63.05	79.26
STDEV		0.15	1.13	2.94	3.88	20.84	0.03	0.10	3.50	3.59	19.03	7.11

POST COMBUSTION CONTROLS: WET FGD SCRUBBERS (PM AND SO2)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Sub-bituminous Coal, PC Boiler with HS-ESP and wet FGD scrubber												
Alabama	1	2.64	3.33	2.09	8.06	23.49	0.06	1.68	3.39	5.13	44.08	78.19
Alabama	2	1.55	3.98	2.17	7.69	21.50	0.07	1.86	3.50	5.44	37.80	74.71
Alabama	3	3.45	3.55	2.02	9.01	23.94	0.05	2.06	3.19	5.30	48.25	77.86
Average		2.55	3.62	2.09	8.26	22.98	0.06	1.87	3.36	5.29	43.38	76.92
Coronado	1	0.03	0.99	2.19	3.20	4.45	0.02	0.04	3.56	3.61	0.63	18.85
Coronado	2	0.03	0.82	1.86	2.71	4.76	0.08	0.07	1.83	1.98	35.61	58.43
Coronado	3	0.03	1.09	1.87	2.99	3.86	0.11	0.13	3.08	3.32	2.08	13.90
Average		0.03	0.96	1.97	2.96	4.36	0.07	0.08	2.82	2.97	12.77	30.39
Craig 1	1	0.04	0.33	3.61	3.97	2.45	0.00	0.13	2.13	2.26	49.89	7.53
Craig 1	2	0.04	0.29	2.52	2.85	2.79	0.00	0.11	2.09	2.20	32.19	21.23
Craig 1	3	0.04	0.16	1.99	2.19	2.30	0.01	0.09	2.03	2.14	14.16	6.98
Average		0.04	0.26	2.71	3.01	2.51	0.01	0.11	2.08	2.20	32.08	11.91
Navajo	1	0.03	2.91	3.55	6.49	4.37	0.05	0.04	3.67	3.76	48.97	13.88
Navajo	2	0.03	0.45	3.93	4.41	2.63	0.02	0.04	3.79	3.85	23.15	0.00
Navajo	3	0.03	0.62	3.50	4.16	2.63	0.01	0.04	3.77	3.82	19.27	0.00
Average		0.03	1.33	3.66	5.02	3.21	0.03	0.04	3.75	3.81	30.46	4.63
San Juan	1	0.02	6.25	5.81	12.08	7.94	0.05	0.45	7.14	7.64	44.34	3.84
San Juan	2	0.08	3.31	4.26	7.65	8.69	0.08	0.38	4.79	5.25	39.60	39.61
San Juan	3	0.02	5.07	3.62	8.70	11.00	0.05	0.31	4.66	5.02	49.25	54.35
Average		0.04	4.87	4.56	9.47	9.21	0.06	0.38	5.53	5.97	44.40	32.60
Average		0.54	2.21	3.00	5.74	8.45	0.05	0.49	3.51	4.05	32.62	31.29
Minimum		0.02	0.16	1.86	2.19	2.30	0.00	0.04	1.83	1.98	0.63	0.00
Maximum		3.45	6.25	5.81	12.08	23.94	0.11	2.06	7.14	7.64	49.89	78.19
STDEV		1.10	1.97	1.15	2.98	7.95	0.03	0.72	1.35	1.59	16.91	29.66
Lignite, PC Boiler with CS-ESP and wet FGD scrubber												
Monticello 3	1	0.19	16.49	29.39	46.07	61.96	0.31	6.50	29.45	36.25	21.31	41.49
Monticello 3	2	0.11	19.77	28.15	48.03	63.13	0.18	0.44	25.52	26.14	45.57	58.59
Monticello 3	3	0.13	25.83	27.21	53.16	76.52	0.24	7.26	23.10	30.60	42.44	60.01
Average		0.14	20.70	28.25	49.09	67.20	0.24	4.73	26.02	31.00	0.00	53.36
Reliant	1	0.01	23.55	13.38	36.94	14.49	0.04	2.69	15.96	18.69	49.40	0.00
Reliant	2	0.01	24.55	13.11	37.68	20.84	0.33	3.18	16.23	19.74	47.59	5.27
Reliant	3	0.02	28.15	14.11	42.29	15.29	0.12	1.27	17.18	18.58	56.07	0.00
Average		0.02	25.42	13.54	38.97	16.87	0.17	2.38	16.46	19.01	51.02	1.76
Average		0.08	23.06	20.89	44.03	42.04	0.20	3.56	21.24	25.00	37.48	27.56
Minimum		0.01	16.49	13.11	36.94	14.49	0.04	0.44	15.96	18.58	0.00	0.00
Maximum		0.19	28.15	29.39	53.16	76.52	0.33	7.26	29.45	36.25	56.07	60.01
STDEV		0.07	4.24	8.09	6.28	28.12	0.11	2.76	5.63	7.32	19.77	29.07

POST COMBUSTION CONTROLS: WET FGD SCRUBBERS (PM AND SO2)

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous Coal, PC Boiler with CS-FF and wet FGD scrubber												
Clover	1	0.05	0.97	1.08	2.11	28.33	0.05	0.42	0.42	0.88	94.64	96.89
Clover	2	0.03	1.07	1.93	3.03	39.93	0.02	0.34	0.17	0.53	97.77	98.68
Clover	3	0.08	1.15	0.61	1.83	48.26	0.06	0.05	0.14	0.25	98.28	99.49
Average		0.06	1.06	1.21	2.32	38.84	0.04	0.27	0.24	0.55	96.90	98.35
Intermountain	1	0.01	1.01	0.20	1.22	2.00	0.01	0.03	0.25	0.29	96.95	85.45
Intermountain	2	0.01	1.08	0.24	1.33	1.97	0.01	0.07	0.46	0.54	94.84	72.72
Intermountain	3	0.01	1.36	0.22	1.58	3.09	0.01	0.08	0.41	0.50	95.99	83.94
Average		0.01	1.15	0.22	1.38	2.35	0.01	0.06	0.37	0.44	95.92	80.70
Average		0.03	1.11	0.71	1.85	20.60	0.03	0.16	0.31	0.50	96.41	89.53
Minimum		0.01	0.97	0.20	1.22	1.97	0.01	0.03	0.14	0.25	94.64	72.72
Maximum		0.08	1.36	1.93	3.03	48.26	0.06	0.42	0.46	0.88	98.28	99.49
STDEV		0.03	0.14	0.69	0.66	20.97	0.02	0.17	0.14	0.23	1.51	10.65

FLUIDIZED BED COMBUSTORS

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Bituminous/Waste, FBC with CS-FF												
Scrubgrass	1	184.04	0.68	0.19	184.91	100.09	0.00	0.07	0.08	0.15	99.92	99.85
Scrubgrass	2	124.11	0.42	0.09	124.62	101.35	0.00	0.05	0.07	0.12	99.91	99.89
Scrubgrass	3	76.68	0.22	0.07	76.97	100.25	0.00	0.04	0.07	0.11	99.85	99.89
Average		128.28	0.44	0.12	128.83	100.56	0.00	0.05	0.07	0.13	99.89	99.88
Minimum		76.68	0.22	0.07	76.97	100.09	0.00	0.04	0.07	0.11	99.85	99.85
Maximum		184.04	0.68	0.19	184.91	101.35	0.00	0.07	0.08	0.15	99.92	99.89
STDEV		53.80	0.23	0.06	54.09	0.68	0.00	0.01	0.01	0.02	0.04	0.02
Bituminous, FBC with SCR and CS-FF												
AES	1	0.26	0.04	1.29	1.59	3.77	0.00	0.02	0.68	0.70	55.84	81.39
AES	2	0.35	0.17	1.38	1.90	3.72	0.00	0.02	0.90	0.92	51.35	75.16
AES	3	0.36	0.11	1.18	1.64	2.51	0.00	0.02	0.55	0.58	64.91	77.06
Average		0.32	0.10	1.28	1.71	3.33	0.00	0.02	0.71	0.73	57.37	77.87
Stockton	1	2.71	0.06	0.06	2.83	1.68	0.02	0.04	0.05	0.11	96.09	93.39
Stockton	2	1.56	0.07	0.06	1.69	1.44	0.03	0.05	0.05	0.13	92.16	90.80
Stockton	3	2.08	0.06	0.06	2.20	1.66	0.03	0.05	0.05	0.12	94.48	92.67
Average		2.12	0.07	0.06	2.24	1.59	0.03	0.05	0.05	0.12	94.25	92.29
Average		1.22	0.08	0.67	1.98	2.46	0.02	0.03	0.38	0.43	75.81	85.08
Minimum		0.26	0.04	0.06	1.59	1.44	0.00	0.02	0.05	0.11	51.35	75.16
Maximum		2.71	0.17	1.38	2.83	3.77	0.03	0.05	0.90	0.92	96.09	93.39
STDEV		1.05	0.05	0.67	0.48	1.06	0.01	0.01	0.38	0.35	20.70	8.20
Lignite, FBC with CS-ESP												
Heskett	1	4.73	5.39	3.83	13.95	13.54	1.06	1.44	4.57	7.07	49.29	47.76
Heskett	2	2.93	0.96	2.61	6.50	12.68	0.07	0.41	5.31	5.78	11.09	54.40
Heskett	3	7.43	0.44	3.08	10.94	11.11	0.05	0.18	4.74	4.98	54.49	55.19
Average		5.03	2.26	3.17	10.46	12.44	0.39	0.68	4.87	5.95	38.29	52.45
Minimum		2.93	0.44	2.61	6.50	11.11	0.05	0.18	4.57	4.98	11.09	47.76
Maximum		7.43	5.39	3.83	13.95	13.54	1.06	1.44	5.31	7.07	54.49	55.19
STDEV		2.26	2.72	0.62	3.75	1.23	0.58	0.67	0.38	1.06	23.70	4.08

FLUIDIZED BED AND STOKER COMBUSTORS

Hg Speciation at Inlet and Outlet: Percent Reduction Based on OH Train and Coal Data

Plant ID	Run No.	Hg(p) In OH	Hg(II) In OH	Hg° In OH	Hg(T)1 In OH	Hg(T)2 In Coal	Hg(p) Out OH	Hg(II) Out OH	Hg° Out OH	Hg(T) Out OH	%R Hg(T)1 OH	%R Hg(T)2 Coal
Lignite, FBC with CS-FF												
TNP	1	21.65	8.68	7.42	37.74	63.81	0.04	12.13	4.74	16.91	55.20	73.50
TNP	2	10.65	4.51	6.09	21.25	44.22	0.03	6.78	2.94	9.76	54.07	77.93
TNP	3	28.12	13.78	7.04	48.94	95.04	0.04	13.54	5.07	18.66	61.88	80.37
Average		20.14	8.99	6.85	35.98	67.69	0.04	10.82	4.25	15.11	57.05	77.27
Minimum		10.65	4.51	6.09	21.25	44.22	0.03	6.78	2.94	9.76	54.07	73.50
Maximum		28.12	13.78	7.42	48.94	95.04	0.04	13.54	5.07	18.66	61.88	80.37
STDEV		8.83	4.64	0.68	13.93	25.63	0.01	3.57	1.14	4.71	4.22	3.48
Waste Anthracite, FBC with CS-FF												
Kline	1	44.54	0.12	0.45	45.11	148.68	0.00	0.06	0.06	0.12	99.74	99.92
Kline	2	43.12	0.06	0.40	43.58	212.95	0.00	0.06	0.06	0.12	99.73	99.95
Kline	3	44.97	0.06	0.34	45.37	153.77	0.00	0.06	0.06	0.12	99.74	99.92
Average		44.21	0.08	0.40	44.69	171.80	0.00	0.06	0.06	0.12	99.74	99.93
Minimum		43.12	0.06	0.34	43.58	148.68	0.00	0.06	0.06	0.12	99.73	99.92
Maximum		44.97	0.12	0.45	45.37	212.95	0.00	0.06	0.06	0.12	99.74	99.95
STDEV		0.97	0.03	0.06	0.97	35.73	0.00	0.00	0.00	0.00	0.01	0.01
Bituminous, Stoker with CS-FF/SDA												
Collier	1	2.19	0.03	0.06	2.28	3.37	0.06	0.02	0.08	0.16	92.84	95.16
Collier	2	2.14	0.18	0.42	2.75	3.48	0.03	0.03	0.09	0.15	94.48	95.64
Collier	3	1.99	0.03	0.11	2.13	3.29	0.01	0.03	0.06	0.10	95.43	97.04
Average		2.11	0.08	0.20	2.39	3.38	0.03	0.03	0.08	0.14	94.25	95.95
Minimum		1.99	0.03	0.06	2.13	3.29	0.01	0.02	0.06	0.10	92.84	95.16
Maximum		2.19	0.18	0.42	2.75	3.48	0.06	0.03	0.09	0.16	95.43	97.04
STDEV		0.10	0.09	0.19	0.32	0.09	0.02	0.00	0.02	0.04	1.31	0.98
Bituminous, Stoker with CS-ESP and wet FGD scrubber												
Big Bend	1	0.09	4.86	2.40	7.34	17.52	0.05	0.21	2.18	2.44	66.70	86.05
Big Bend	2	0.05	4.92	2.31	7.29	11.25	0.00	0.12	1.75	1.87	74.37	83.40
Big Bend	3	0.02	4.26	2.13	6.41	12.01	0.03	0.23	2.05	2.31	64.01	80.80
Average		0.05	4.68	2.28	7.01	13.59	0.03	0.19	1.99	2.21	68.36	83.42
Minimum		0.02	4.26	2.13	6.41	11.25	0.00	0.12	1.75	1.87	64.01	80.80
Maximum		0.09	4.92	2.40	7.34	17.52	0.05	0.23	2.18	2.44	74.37	86.05
STDEV		0.03	0.37	0.14	0.52	3.42	0.02	0.06	0.22	0.30	5.37	2.63