

Table VIII-8: Compositions (in units of ppm) of coal, slag, inlet fly ash (in), and outlet fly ashes (out) from Thomas Allen Steam Plant (Klein et al., 1975), and logarithm of various ratios.

	coal 1g	slag 0.0573g	in 0.0503g	out 0.00025g	sum ^a	(sum/ coal)	log(vapor /slag) ^b	log Ex (in/slag)	log Ex (out/slag)
As	5	18	110	440	6.7	1.33	0.59	1.01	1.53
Al	10440	102300	90900	76000	10450	1.01	-0.70	-0.21	-1.17
Ba	65	500	744	750	66	1.02	-0.25	0.23	0.06
Br	3.7	2	4		0.3	0.09	1.32	0.42	
Ca	4340	46000	25200	32000	3910	0.90	c	c	c
Cd	0.47	1.1	8	51	0.5	1.02	0.61	1.09	1.82
Ce	8.2	84	84	120	9.1	1.11	-0.57	-0.08	0.02
Cl	914	100	200	170	16	0.02	2.03	0.42	
Co	2.9	20.8	39	65	3.2	1.09	-0.10	0.38	0.54
Cr	18	152	300	900	24	1.33	-0.07	0.42	0.88
Cs	1.1	7.7	13	27	1	1.00	-0.17	0.32	0.61
Cu	8.3	20	140	170	8.2	0.99	0.58	1.07	1.05
Eu	0.1	1.1	1.3	1.3	0.13	1.29	-0.42	0.06	-0.16
Fe	10850	112000	121000	150000	12540	1.15	-0.50	-0.01	-0.03
Ga	4.5	5	81		4.4	0.97	0.97	1.46	
Hf	0.4	4.6	4.1	5	0.5	1.18	-0.69	-0.20	-0.25
Hg	0.122	0.028	0.05		0.004	0.03	1.70	0.35	
K	1540	15800	20000	24000	1920	1.25	-0.37	0.12	0.07
La	3.8	42	40	42	4.4	1.17	-0.62	-0.13	-0.36
Mg	1210	12400	10600	11000	1250	1.03	-0.74	-0.25	-0.56
Mn	33.8	295	298	430	32	0.95	-0.56	-0.07	0.04
Mo	9	21	210	450	12	1.32	0.75	1.24	1.47
Na	696	5000	10100	11300	797	1.15	-0.06	0.43	0.35
Ni	16	85	210	220	15	0.97	0.06	0.55	0.43
Pb	4.9	6.2	80	650	4.5	0.93	0.88	1.35	2.18
Rb	15.5	102	155	190	14	0.88	-0.24	0.25	0.22
Sb	0.5	0.64	12	55	0.7	1.30	1.04	1.52	2.09
Sc	2.2	20.8	26	36	2.5	1.14	-0.38	0.11	0.17
Se	2.2	0.08	25	88	1.3	0.58	2.51	2.76	3.20
Si	23100	229000	196000		22980	1.00	-0.74	-0.25	
Sm	1	8.2	10.5	9	1	1.00	-0.36	0.13	-0.24
Sr	23	170	250	429	22	0.97	-0.26	0.23	0.42
Ta	0.11	0.95	1.4	1.8	0.13	1.14	-0.26	0.23	0.24
Th	2.1	15	20	26	1.9	0.90	-0.33	0.16	0.17
Ti	506	4100	5980	10000	538	1.06	-0.27	0.22	0.40
U	2.18	14.9	30.1	95	2.4	1.10	-0.05	0.43	0.91
V	28.5	260	440	1180	37	1.31	-0.16	0.32	0.74
Zn	46	100	740	5900	44	0.97	0.63	1.10	1.92

a: sum = equation VIII-2b in the text; b: vapor/slag = equation 3b for Br, Cl, Hg, and Se, and equation 3b for the rest; c: Ca is used for normalization.