

**Council Bluffs Energy Center
Toxic Release Inventory
For the Year**

2005

CB1 Boiler Coal Burned	215,918.00 tons	4.89 % Ash	8587 Btu/lb
CB2 Boiler Coal Burned	391,247.00 tons	4.86 % Ash	8592 Btu/lb
CB3 Boiler Coal Burned	3,074,505.00 tons	4.89 % Ash	8546 Btu/lb
CB1 & CB2 Total Ash	29,572.99 tons		
CB3 Total Ash	150,343.29 tons		
CB1 & CB2 Fly Ash Generated - m	23,696.00 tons		
CB3 Fly Ash Generated - measure	114,660.80 tons		
CB1 & CB2 Bottom Ash Generated	5,599.29 tons		
CB3 Bottom Ash Generated = (coe	35,007.23 tons		
Fly Ash Sold	74,958.39 tons		
Bottom Ash Sold	409.36 tons		
Fly Ash Point Sources	5.33 tons		
Fly Ash Fugitive Sources	37.00 tons		
Ash pond outflow	0.00 Million gallons		

Metals										
Chemical	Arsenic	Barium	Chromium	Copper	Lead	Manganese	Mercury	Nickel	Vanadium	Zinc
Air Release	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs
CB1 Boiler	89	14	73	1	91	106	23	60	0	1
CB2 Boiler	160	25	133	2	164	192	42	110	0	2
CB3 Boiler	1,261	194	1,042	17	1,300	1,507	328	861	0	19
Fly Ash Point Source Dust Released	1	6,111	1	308	2	6	0	1	2,262	326
Fly Ash Fugitive Dust Released	6	236	6	12	11	41	0	8	87	13
Total Air Releases	1,516	6,579	1,255	340	1,568	1,851	393	1,041	2,349	361
Chemical Emission Factor lbs/ton c		0.0000630		0.000056			0.0001003		0.0000000	0.0000061
Chemical Concentration lbs/ton coal - wet	0.00161331	0.485507	0.0070334	0.0176798	0.0037209	0.0258442	0.00011848	0.00469114	0.0220046	0.0142734
Waste Release										
Chemical ppm (flyash)	80.638	3188.598	79.16	160.664	154.739	560.072	0.141	114.725	1180	169.941
Chemical ppm (bottom ash)	119.299	5466.168	129.332	181.262	68.773	1006.506	0.241	178.462	537	129.479
	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs
CB1 & CB2 Fly Ash	482	173,950	2,492	8,250	1,915	8,731	4	1,704	12,737	7,618
CB1 & CB2 Bottom Ash	249	120,795	1,572	2,481	89	6,663	3	974	623	1,045
CB3 Fly Ash	2,214	783,323	11,336	38,902	9,551	39,226	19	7,794	61,421	36,974
CB3 Bottom Ash	1,479	702,830	9,239	15,118	576	38,678	17	5,758	3,884	6,553
Fly Ash Sold	-1,460	-518,627	-7,492	-25,546	-6,212	-25,982	-13	-5,146	-40,177	-24,159
Bottom Ash Sold	-17	-8,303	-109	-177	-7	-457	0	-68	-45	-77
Check Sums										
Total metal in coal -air emission	4,423	1,780,897	24,640	64,751	12,131	93,298	44	16,231	78,665	52,189
Fly Ash metal + Bottom Ash metal	4,423	1,780,897	24,640	64,751	12,131	93,298	44	16,231	78,665	52,189
Impounded (Fly Ash)	1,235	438,645	6,337	21,606	5,254	21,975	11	4,352	33,981	20,433
Impounded (Bottom Ash)	1,711	815,322	10,702	17,422	659	44,884	20	6,665	4,462	7,521
Total Waste Releases	2,946	1,253,967	17,039	39,028	5,912	66,859	31	11,017	38,443	27,954
Water Releases										
Chemical ppm (ash water)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Water Releases	0	0	0	0	0	0	0	0	0	0
Total Water Releases	0	0	0	0	0	0	0	0	0	0
Total Releases All Media	4,462	1,260,546	18,293	39,368	7,481	68,711	423	12,057	40,791	28,315
Total Manufactured (metal)	5,940	1,787,477	25,895	65,091	13,699	95,150	436	17,271	81,014	52,550
Total Manufactured (dioxide)	8,477	2,203,956	41,830	97,867	15,815	150,570	506	26,685	131,906	78,270

Acid Gases			
Chemical	Hydrochloric Acid	Hydrogen Fluoride	Sulfuric Acid
Air Release	Lbs	Lbs	Lbs
CB1 Boiler	28,064	14,922	1,980
CB2 Boiler	50,852	27,040	3,196
CB3 Boiler	399,603	212,484	26,039
Total Air Releases	478,518	254,446	31,214
Waste Releases			
No significant releases			
Total Waste Releases	0	0	0
Water Releases			
No significant releases			
Total Water Releases	0	0	0
Total Releases All Media	478,518	254,446	31,214
Total Manufactured	478,518	254,446	31,214

Dioxin and Dioxin-Like Compounds**Air Release**

Boiler combustion Emission Factor from EPRI 4.66E-05 Lbs/trillion Btu
Grams/Lbs 453.59

Grams

CB1 Boiler 0.08
CB2 Boiler 0.14
CB3 Boiler 1.11
Total Air Releases 1.33

Waste Releases

No significant releases

Total Waste Releases 0

Water Releases

No significant releases

Total Water Releases 0

Total Releases All Media 1.3

Total Manufactured 1.3