

Table 21. Metal concentrations of residuals (mg/kg).

	503 Pollutant Concentration	Clayton Co. (In Vessel) Composting	Glynn County Composting	Clayton Co. Pelletizing	Cobb Co. Incineration	DeKalb Co. Land Ap.	Cobb Co. Landfilling
Arsenic	41	7.23	1.36	2.06	0.115	<2	5.90
Cadmium	39	1.70	0.56	2.46	0.005	3.00	1.96
Chromium	1200		9.40	31.70	0.005	15.66	62.60
Copper	1500	72.70	53.30	235.00		176.00	134.34
Lead	300	7.07		48.90	0.010	14.00	14.56
Mercury	17	0.54	0.02	1.15	0.001	<1	3.28
Molybdenum*	18	6.70	1.77	5.79		10.00	
Nickel	420	3.90		26.70		9.00	29.98
Selenium	36	6.17	0.99	1.65	0.033	<2	7.87
Zinc	2800	125.00	148.00	1049.00		423.22	337.22

* EPA has suspended the Molybdenum pollutant concentration limit

6.0 EMERGING TECHNOLOGIES

The need for alternative methods of disposal is the driving force behind innovative research and exploration. Many new ideas and technologies that can utilize biosolids in productive ways are being explored. Emerging technologies, or those sludge disposal technologies still in the developmental stage, typically have been tried only on a small scale or laboratory bench. Emerging technologies include animal feed production, biobrick production, cement from sludge, earthworm conversion (vermiculture), fuel from sludge, and road aggregate production. The American Society of Civil Engineers and the Water Environment Federation, with grant assistance from the U.S. Environmental Protection Agency, have published a reference book, Design of Municipal Wastewater Treatment Plants, that contains a thorough discussion on these subjects.

7.0 GEORGIA BIOSOLIDS DATA

A significant amount of data was obtained through the Environmental Protection Division (Georgia Department of Natural Resources) concerning the permitting and biosolids inventoried throughout the state of Georgia. The most recent completed database of facilities and disposal figures uses 1997 data. Though the actual amount of waste being produced may vary, the general picture of the state's biosolids production is well represented in this database.