

US EPA ARCHIVE DOCUMENT

Appendix A

CORE DATA INPUTS

APPENDIX A: PRICES USED IN THE ECONOMIC IMPACT ANALYSES

	Price	Year	1996 Price	Unit	Other Supporting Data	Sources
HW transportation costs						
Bulk liquids - 200 miles	\$0.24	1992	\$0.26	\$/ton-mile	Assumes 8.34 lbs/gal	(A)
Bulk solids - 200 miles	\$0.23	1992	\$0.25	\$/ton-mile		(A)
Transportation miles						
Generator to commercial incinerator	200			miles		(B)
Generator to cement kiln	200			miles		(B)
Cost of shipping waste to a commercial facility						
Cement kilns	\$3	1996	\$53	\$/ton	Assumes \$/ton based on 200 miles	(A)
liquids	\$50	1996	\$50	\$/ton	Assumes \$/ton based on 200 miles	(A)
sludges + solids	\$53	1996	\$53	\$/ton	Assumes \$/ton based on 200 miles	(A)
Commercial incinerators	\$50	1996	\$50	\$/ton	Assumes \$/ton based on 200 miles	(A)
liquids	\$53	1996	\$53	\$/ton	Assumes \$/ton based on 200 miles	(A)
sludges + solids	\$50	1996	\$50	\$/ton	Assumes \$/ton based on 200 miles	(A)
Cost of major conventional fuels used by cement kilns						
Coal	\$1	1996	\$1	\$/MBtu	22,958 MBtu/ton	(C,D)
Natural gas	\$3	1996	\$3	\$/MBtu	1029 Btu/cf	(E,F)
Mixture (91.1% coal, 8.9% natural gas)	\$2	1996	\$2	\$/MBtu		(G,C-F)
Cost of major conventional fuels used by LWAKs						
Residual Fuel oil	\$3	1996	\$3	\$/MBtu	6,287 MBtu/barrel	(H,I,J)

Hazardous Waste Prices in 1996 Dollars

Waste Form	Price (\$/ton)	Source
Clean Liquids - pre-MACT	20	(K)
post-MACT	0	(K)
Liquids with Suspended Solids	70	(L)
Highly Contaminated Liquids	301	(L)
Less Contaminated Sludges	320	(L)
Highly Contaminated Sludges	630	(L)
Less Contaminated Solids	683	(L)
Highly Contaminated Solids	1281	(L)

Inflation Index Used to Scale Prices to 1996 Dollars (M)
(GDP implicit price deflator)

Year	Price Index	Scale Factor
1992	100.00	1.10
1993	102.81	1.07
1994	104.95	1.05
1995	107.59	1.02
1996	109.69	1.00

Sources:

- (A) "Estimating Costs for the Economic Benefit of RCRA Noncompliance" prepared by DPRA, incorporated for EPA's Office of Regulatory Enforcement, September 1994, p. 5-4.
- (B) "Estimating Costs for the Economic Benefit of RCRA Noncompliance" prepared by DPRA, incorporated for EPA's Office of Regulatory Enforcement, September 1994, p. 5-10.
- (C) "Quarterly Coal Report July-September 1996", Table 21, Average Price of U.S. Coal Receipts by End-Use Sector, 1990-1996, Energy Information Administration.
- (D) "Natural Gas Monthly March 1997", Table 4, Selected National Average Natural Gas Prices, 1991-1997. Price of gas delivered to industrial consumers. Energy Information Administration.
- (E) "Quarterly Coal Recycling Coalition (CQRC) August 19, 1996 Comments on Proposed HW Combustion Rules", p.97.
- (F) "1996 Annual Energy Review," Energy Information Administration, Table A4: Approximate Heat Content of Natural Gas, 1949-1996. Provides preliminary estimate for 1995 on the heat content of coal consumed by sectors other than electric utilities.
- (G) "U.S. Cement Industry Fact Sheet: Fourteenth Edition," Table 24: Fossil Fuel Mix, prepared by Portland Cement Association, Economic Research Department, Skokie, IL, 1986, p. 17.
- (H) "Petroleum Marketing Monthly Report", Table 19: U.S. Refiner Residual Fuel Oil Prices. Average sale price to end users. Energy Information Administration, <http://eia.doe.gov/pub/petroleum/data/monthly/prm/tables19.txt>, (24 April 1997).
- (I) "1996 Annual Energy Review," Energy Information Administration, Table A1: Approximate Heat Content of Petroleum Products and Wood. Provides 1996 data on the approximate heat content of residual fuel oil.
- (J) "1993 Annual Energy Review," Energy Information Administration, Table B3: Other Physical Conversion Factors. Provides data on physical conversion factors for energy sources.
- (K) Comparable Fuel Work -- Best Estimate
- (L) Industry estimates of average market prices.
- (M) Frequently Requested NIPA Data: History, Table: Price Indexes and Implicit Deflators for GDP, Gross Domestic Purchases, and GNP, Annually, 1959-1996, U.S. Dept. of Commerce's Bureau of Economic Analysis, www.bea/doc/gov/bea/sumnnp-4.html (June 2, 1997)