TABLE A.3.2

Cost of Control Technologies for SO_2 Reduction for Representative 500 MW Coal-fired Thermal Power Plants

SO_2 CONTROL TECHNOLOGY	LOW SULFUR COAL[b]			HIGH SULFUR COAL[c]		
	CAPITAL COST $/kW	LEVELIZED COST mills/kWh	COST EFFECTIVENESS $/tonne SO_2 removed	CAPITAL COST $/kW	LEVELIZED COST mills/kWh	COST EFFECTIVENESS $/tonne SO_2 removed
Wet FGD[a]						
- Limestone	176	10.7	3806	244	16.4	840
- Lime	162	11.3	4026	224	17.4	880
- Dual Alkali	181	11.2	4004	251	17.1	880
- Wellman Lord	235	13.6	4862	326	20.9	1100
Dry FGD[a]						
- Lime	154	9.4	3344	200	17.1	880
- Sodium	158	10.2	3630	-	-	-
Physical Coal Cleaning[d]	-	-	-	-	-	790

a) The source of the costs quoted are reports EPA-600/7-81-014 and EPA-600/9-81-019a. These are hypothetical costs derived from a computer model generated by Tennessee Valley Authority, for a particular set of assumptions, viz. 500 MW unit, located in the U.S. upper mid-western states, burning coal, operating for 5500 hours per year, for 30 years. The capital and operating costs for particulate matter collection are included in the SO_2 reduction costs. It is further assumed that the capital costs are in 1982 dollars, and the revenue is in 1984 dollars. Actual historical cost data are available in EPA-600/7-81-012a Tables A1 and A2 "EPA Utility FGD Survey", Jan. 1981.

b) Low sulfur western coal, 9 700 Btu/lb. 0.7% Sulfur (dry basis); 70% SO_2 removal.

c) High sulfur eastern coal, 11 700 Btu/lb. 3.5% Sulfur (dry basis); 90% SO_2 removal for FGD processes.

d) Source: EPA-600/7-81-086; 28% SO_2 removal.