

TABLE B.2.4

**COST OF FIXING SULPHUR AS SULPHURIC ACID FROM SMELTER GASES  
USING SINGLE CATALYSIS ACID PLANT (EPS 3-AP-79-8)  
(\$ CAN. June, 1979)**

Basis for Estimates	Continuous Gas only	Variable Gas only	Continuous Gas Base Load with Variable Gases	
Production: t/day 100% H <sub>2</sub> SO <sub>4</sub>	530	530	530	1 070
Gases:				
Continuous smelter gas, i.e., from roaster, flash furnace, % SO <sub>2</sub>	12	-	12	12
Variable gas, i.e., from converters, % SO <sub>2</sub>	-	5 - 8	5 - 8	5 - 8
CAPITAL COST (\$, June 1979 cost level)				
Single catalysis sulphuric acid plant <sup>1</sup>	11 880 000	19 499 000	14 799 000	22 363 000
Contingency @ 25%	2 970 000	4 875 000	3 700 000	5 591 000
Auxiliary equipment and services	1 485 000	2 437 000	1 850 000	2 795 000
Total Capital Cost	16 335 000	26 811 000	20 349 000	30 749 000
PRODUCTION COST (\$/t H <sub>2</sub> SO <sub>4</sub> )				
Operating Cost:				
Supervision	0.54	0.54	0.54	0.26
Operating labour	1.06	1.06	1.06	0.60
Utilities	1.61	2.86	2.01	1.97
Operating supplies <sup>3</sup>	0.28	0.28	0.28	0.28
Maintenance <sup>5</sup>	2.89	4.74	3.59	2.73
Indirect cost <sup>4</sup>	0.71	0.71	0.71	0.37
Subtotal	7.09	10.19	8.19	6.21
Contingency @10%	0.71	1.02	0.82	0.62
Total operating cost	7.80	11.21	9.01	6.83
Capital Charges:				
Amortization and Interest @ 15 years and 10%/yr	11.51	18.88	14.33	10.82
Total Production Cost	19.31	30.09	23.34	17.65

1. Includes engineering and construction overhead costs.
  2. Includes natural gas, water and electric power.
  3. Includes limestone for weak acid neutralization and other operating supplies.
  4. @ 3.3%/year of total capital cost.
  5. Includes property taxes, insurance, legal and technical counsel, etc.
- t = tonne