

The Economics of Pollution Control in the Non-Ferrous Metals Industry,
by M.H. Atkins and J.F. Lowe, Pergamon, Oxford, 1979, 177 pages,
£21.00 (\$48.00).

The goal of the research which resulted in this book was to investigate the economics of pollution control costs and expenditures in the non-ferrous metal industry. The work was done in the United Kingdom with funding supplied by the Department of the Environment, which is the British counterpart to the U.S. Environmental Protection Agency.

Written by two business professors, the book focuses heavily on the costs of pollution control, especially from the industrial viewpoint. After an introductory chapter on economic analysis, separate chapters are devoted to the primary aluminum, secondary aluminum, lead, copper and brass, zinc and metal-founding industries.

Since my personal experience with the metal industry has been limited to the lead area, I examined that chapter in greatest detail and found that the authors have done an excellent job of presenting data on production (U.K. figures), major manufacturers, international prices and consumption. I also found, much to my surprise, valuable (and previously unseen by me, at least) atmospheric lead concentration data of the air, dust and soil.

Control methods are briefly, but inadequately (from an engineer's viewpoint), discussed. Other than relating pollution control costs to the size of the plant, there was no attempt to correlate effluent quality (or conversely per cent removal of contaminants) to cost. Also the discussion was limited almost to air pollution, with extensive U.S. EPA documents on water pollution and its control not cited.

In spite of limited documentation, the authors were able to construct a table of costs of control in £ per tonne of lead removed, the cost varying from £0.75 to £16.83. The authors also found that in the industry pollution-control costs never exceeded 20% of production costs, but capital costs for installation of new equipment could be quite high.

As a final note, I calculated the book's cost to be 27¢ per page; that's quite high.

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Polycyclic Hydrocarbons and Cancer, Vol. 3, by H.V. Gelboin and P.O.P. Ts'o (Eds.), Academic Press, New York, 1982, 351 pages, \$49.50 (£32.80).

In the United States, the environmental movement appears to focus on, and hammer away repeatedly at, a major concern. When a single topic receives a great deal of attention, it attracts the interest of the U.S. Congress and laws are passed on the subject. The problems of Lake Erie, air pollution,