

Financial Decision Making in the Process Industry, Donald R. Woods, Prentice Hall, Inc., Englewood Cliffs, N.J. 324 pages, \$16.95.

This treatise gives a comprehensive introduction to the various methods of judging the financial viability of capital ventures. It is both timely and broad in scope. The author has a lucid delivery and makes particularly good use of graphical illustrations and tables.

In most areas the author meets his stated objective—to describe methods of calculating different financial attractiveness criteria. One outstanding deficiency is the lack of material on criteria to use when there is risk or uncertainty. No mention is made of even such fundamental tools as Monte Carlo. The suggestion on page 142 that the present value criteria can account for risk through variation in interest rate is, in general, a poor technique since it leads to excessive compounding of risk on middle-to long term projects.

In treating the concepts of marginal costs and marginal revenues the author fails to mention competitive reaction and lowered prices which is an essential factor in judging true marginal revenues.

In my opinion the space devoted to extensive mathematical derivations would be better used by including more sample problems. A greater variety of sample problems would be useful in guiding both students and practitioners.

As a summary view, *Financial Decision Making in the Process Industry* fills a need in decision making literature and, should be useful to the college student and to the young practicing engineers in relating engineering knowledge to the financial aspects of business. The bibliography included provides an excellent source of references in areas the reader may wish to pursue further.

H. D. GUTHRIE
Shell Oil Company
Houston, Texas

Pollution Engineering Practice Handbook, P. N. Cheremisinoff and R. A. Young, Ann Arbor Science, 1973 pages. \$29.50.

Cheremisinoff and Young are associate editor and editor, respectively, of *Pollution Engineering* magazine. They have collected a large number of articles on all aspects of pollution from the first 5 volumes of *Pollution Engineering Practice Handbook*. Two strong points of this handbook are that almost every aspect of pollution is covered in at least some detail, and that practical, proven techniques for solving problems are stressed, actual case studies being used liberally. The weaknesses of this work come from the fact that it is a collection of previously published articles. This means that some topics are very

complete but others are less so. For example, in the wastewater area, disinfection is covered rather thoroughly but chemical treatment is barely more than mentioned. Some topics are covered quantitatively with design equations and others are treated qualitatively. Because the handbook has been abstracted from previously published articles, the material for any one topic does not always follow logically. In the wastewater area, for example, one would expect to find (in a handbook) a section listing terminology and definitions. This type of information can be found only with difficulty and by going back and forth between several different articles.

The *Pollution Engineering Practice Handbook* will have its greatest value to the engineer who wants practical information on a specific aspect of the pollution control field. This is best illustrated by the topic (in the Air Pollution section) on "SO₂ Control in Small Boilers" and "Plastic Pipe for Sewers" (in the Wastewater section). As with any handbook, it does have something for everyone. My wife read with interest the chapter on Traffic Noise in order to figure out how to keep the street traffic noises out of her kitchen.

JERRY A. CASKEY
Associate Professor of
Chemical Engineering
Rose-Hulman Inst. of Tech.
Terre-Haute, Indiana

ERRATA

In Vol. 21, No. 4, July 1975 Continuous Production of Polystyrene in a Tubular Reactor: Part 1, 1) Page 690, Equation in upper left hand corner should read:

$$S_a^2 = \frac{\sum_{j=1}^9 (\bar{X}_1 - \bar{X}_2)^2_j}{2 \times 8} \quad (\text{excluding } j = 8)$$

Part 2, 1) Page 693, Equation (23) should read:

$$C_{mo} V_{zo} \frac{\partial x_m}{\partial z} = R_p + \frac{D}{r} \frac{\partial}{\partial r} \left(r \frac{\partial x_m}{\partial r} \right) C_{mo}$$

) Page 693:

$$p = C_{mo}(1 - x_m) \left[k_m^2 \left(\frac{a + bx_m}{\rho_o} \right)^3 f_{C_{Io}}(1 - x_I) + k_{mt}^2 \left(\frac{a + bx_m}{\rho_o} \right)^2 \right]^{1/2}$$

) Page 694, Equation (27) should read:

$$C_{mo} V_{zo} \frac{dx_m}{dz} = R_p$$

4) Page 694, Equation (30) should read:

$$\rho_o C_p V_o \frac{dT}{dz} = -\Delta H_r R_p - \frac{4.364k}{R^2} (T - T_w)$$

5) Page 694, Under heading "Molecular Weight Calculation"

$$\bar{X}_{mi} = (\bar{X}_{m,i+1} - X_{m,i}) = R_p \Delta z / (V_z C_{mo})$$

6) Page 698, Definition of gas constant to be consistent with numbers for activation energy should read:

$$R = \text{gas constant, } 1.987 \times 10^{-3} \text{ Kcal/g-mole-}^\circ\text{K}$$

"Corotational Rheological Models and the Goddard Expansion," by R. B. Bird, O. Hassager, and S. I. Abdel-Khalik, *AIChE J. ERRATA*, 21, 1237 (1975), should read [20, 1041-1066 (1974).]

In the Table of Contents *AIChE J.* 21, 6, (1975). "Benzoin and Benzoin Methyl Ether-Sensitized Photopolymerization of Styrene and Methyl Methacrylate: Quantum Yields and Mixing Effects" should read "by S. K. Mendiratta, R. M. Felder and F. B. Hill."

(Continued on page 207)