



Design for the Environment

Environmental Accounting and Capital Budgeting Project Update #1



Background

DfE project vision:
To encourage and motivate businesses to understand the full spectrum of environmental costs and integrate these costs in decision making.

DfE project objective:
To facilitate understanding and integration of environmental costs through the development and use of improved cost accounting and capital budgeting.

In late 1992, as part of its Design for the Environment (DfE) Program, EPA began working to promote improvements in environmental managerial accounting and capital budgeting practices. In March 1993, the Agency published a DfE Fact Sheet which described the initial phases of the Accounting Project (EPA/744093-002). This is the first in a series of updates designed to inform the public of current and upcoming project events, recent publications and contacts. The documents, fact sheets, and reports discussed throughout this project update can be obtained from the Pollution Prevention Information Clearinghouse (PPIC) unless otherwise indicated.

The basic assumption of the Accounting and Capital Budgeting for Environmental Costs Project is that environmental protection and economic well-being are mutually dependent. By integrating environmental considerations into traditional business functions, including managerial accounting and capital budgeting, companies are more likely to see the advantages of cleaner, prevention-oriented technologies and practices. Since EPA neither regulates accounting and capital budgeting practices, nor has the expertise to address them directly, the Agency has turned to outside experts who are willing and capable of addressing these important issues. This unprecedented, cooperative effort will mobilize the expertise of the accounting, business, academic, research, environmental communities, and government to integrate more explicitly environmental costs into managerial accounting and capital budgeting practices.

To help build momentum, EPA convened a Focus Group of experts in a diverse group of fields to establish the vision and objective of the project. In addition, the Focus Group worked to reach a consensus on the opportunities presented to businesses by rapidly growing environmental costs and increasing public demand

for cleaner products. Specifically, the group believes that the environmental problems we face present many opportunities for businesses to improve their decisions by better identifying and understanding the environmental costs of their operations. The group maintains the following assumptions:

-Cost accounting and capital budgeting processes can be improved to more fully incorporate environmental costs.

-Better information can help managers evaluate the full spectrum of choices and the costs and benefits of business actions that prevent pollution.

-Because much work is currently underway to improve accounting and capital budgeting, there is an unprecedented opportunity to gather this expertise to stimulate an interdisciplinary dialogue.

EPA's efforts are designed to take advantage of these opportunities.

What are the Components of the DfE Accounting and Capital Budgeting Project?

EPA's activities fall into four categories: (1) Facilitating Dialogue; (2) Developing, piloting and disseminating tools and methods; (3) Developing curriculum; and (4) Promoting research. EPA is emphasizing its role as a facilitator, but will provide its environmental expertise when appropriate. By bringing parties together, increasing communication, raising businesses and public consciousness on accounting issues, and challenging the private sector to improve its current practices, the Agency is serving an appropriate and valuable role. The Agency is also supporting research to better define the problem and to test and pilot improved methods of accounting and capital budgeting. The Agency is particularly interested in helping small and medium-sized businesses that lack the expertise or time to change their accounting and capital budgeting practices. Finally, the Agency recognizes that long-term change requires modifications in University curricula as well as training for financial, engineering, and environmental professionals.

What is EPA Doing to Promote Dialogue?

Focus Groups and the Accounting and Capital Budgeting Workshop

During 1993, EPA held two Focus Group meetings of stakeholders, which included the following individuals and the organizations they represent:

Philip Ameen
Mary Bernhard
Daryl Ditz
William S. Garcia
Terri L. Goldberg
John Hudson
Robert Hummer

Institute of Management Accountants and General Electric Corporation
U.S. Chamber of Commerce
World Resources Institute
American Institute of Certified Public Accountants and Union Carbide
Northeast Waste Management Officials Association
American Institute of Certified Public Accountants
American Institute of Plant Engineers and Building Technologies, Inc.

Gary Hunt	National Roundtable of State Pollution Prevention Programs and N.C. Pollution Prevention Program
Dorothy Kellogg	Chemical Manufacturers Association
Dick MacLean	Arizona Public Service
John Morrow	American Institute of Certified Public Accountants
Randy Price	The Business Roundtable and DuPont
Frank Pucciano	Institute of Industrial Engineers and Georgia Power
Richard Selg	AACE International and Westinghouse Savannah River
Christopher Stinson	University of Texas at Austin
Rebecca Todd	New York University

Based on its project vision and objectives, and the need for promoting an interdisciplinary dialogue on the issues, the Focus Group is planning a National workshop of experts in environmental management accounting and capital budgeting. The Workshop has six co-sponsors:

- U.S. Chamber of Commerce
- The Business Roundtable
- American Institute of Certified Public Accountants
- Institute of Management Accountants
- AACE International (Association for Total Cost Management)
- U.S. Environmental Protection Agency.

The workshop will be held in Dallas, Texas in December, 1993. The Focus Group developed the following objectives for the workshop:

- Stimulate ongoing dialogue
- Identify and discuss issues and potential changes/needs
- Develop stakeholders' "Action Agenda" for improving accounting and capital budgeting

The primary audience of the workshop are members of the accounting and business communities who are actively engaged in managerial accounting and capital budgeting for environmental costs. The conference is not focusing on Financial Accounting and public reporting issues. Proceedings from the workshop and the Action Agenda will be available publicly early next year.

Network Development and Mailings

EPA developed a network of more than 325 financial and environmental professionals interested and active in accounting and capital budgeting issues. EPA hopes the network will build momentum around these issues and facilitate the exchange of ideas and information. To enhance the usability of the list, EPA has sorted all network members into categories, such as industry, accounting, consultants, academics, government officials, etc. In addition, for those individuals who filled out EPA's "Participant Information Form", the network list also describes what participants do and/or the services they have to offer. If you have not already joined the network, or wish to correct or add information to your existing listing, please complete and return the "Participant Information Form," or contact PPIC to order one. Please feel free to copy the form and provide it to any colleagues that you believe should be part of the network.

What is EPA Doing to Develop, Pilot and Disseminate Tools and Methods?

EPA is interested in both managerial cost accounting (information collected for internal decision making) and capital budgeting (the process by which companies decide to invest in new capital and

equipment). To better understand managerial accounting practices, EPA is co-funding a study by the World Resources Institute to examine existing accounting practices in a small sample of Fortune 100 companies. The study, nearing the completion of data collection, will provide facility level case studies of accounting practices. The report, which should be available next spring, will synthesize the findings from the case studies. In the interim, several individual case studies will be available from PPIC by December, 1993. Contact Daryl Ditz of the World Resources Institute at (202) 662-3498 for more information about the project.

The American Society for Testing and Material's (ASTM's) Subcommittee on Pollution Prevention, Reuse, Recycling and Environmental Efficiency (E50.03) is developing a "Standard Guide for Pollution Prevention" (Standard E.50.03.1). EPA has funded an effort to incorporate "Total Cost Assessment" principles into the Guide. The draft is currently going out for second ballot. Publication is expected in the Spring, 1994. Contact James Satterfield, Chair of the E-50.03 Subcommittee, at (215) 864-6434 for more information.

Sharing Success Stories

On a regular basis, EPA receives requests from the public for data on savings associated with pollution prevention. Although EPA is not aware of aggregate data for national savings from pollution prevention, the Agency knows of hundreds of examples of prevention practices that have saved money. Finding this information can be difficult since many published case studies do not contain data on the cost savings associated with implemented pollution prevention practices. To help interested parties locate this information, EPA developed an annotated bibliography of sources that provide pollution prevention case studies and created a database of case studies that contain economic information. The annotated bibliography is now available from PPIC. The database of specific case studies with economic information will be available later this year. Case studies available from State Pollution Prevention Programs can be obtained directly from the States (See EPA's 1993 Reference Guide to Pollution Prevention Resources (EPA/742/B-93-001)).

EPA and many of the stakeholders in managerial accounting and capital budgeting for environmental costs recognize the need for publicly available case studies and success stories. For this reason, EPA has been working with stakeholders to publicize examples of improvements in environmental accounting and capital budgeting practices. If you would like EPA to help you publicize a success story, please contact John Robison in EPA's Pollution Prevention Division at (202) 260-3590.

What is EPA Doing in Curriculum Development?

The National Pollution Prevention Center for Higher Education at the University of Michigan has developed a curriculum module on Environmental Accounting. The module provides an introduction to the application of pollution prevention in business accounting. It is a continuously evolving resource list of educational materials. The module summary may be obtained from the University of Michigan, School of Natural Resources and Environment 430 E. University, Dana Building, Ann Arbor, MI 48109-1115; Ph: (313) 764-1412.

In addition to developing University curricula, EPA recognizes the need for curricula to train professionals in business and government. While EPA will continue to explore the development and dissemination of information on curricula for business, some materials are already available through State Technical Assistance Programs and Small Business Development Centers. The Northeast Waste Management Officials' Association (NEWMOA) has produced training materials for teaching the basis of

Environmental Managerial Accounting and Capital Budgeting Financial Analysis. The curriculum, "Costing and Financial Analysis of Pollution Prevention Investments" is available from NEWMOA at (617) 367-8558. The Northwest Pollution Prevention Research Center has also released several video cassettes that are available for a nominal sum. Please see the current resource list of materials available from organizations other than PPIC/EPA for contacts, availability and cost information.

Recognizing the need for additional curricula and delivery mechanisms, EPA will be exploring this issue in the coming year. If you are aware of university curriculum that others could use or adapt, please contact the University of Michigan at (313) 764-1412. If you are aware of curricula for business or other professions, please contact John Shoaff at (202) 260-1831.

What is EPA Doing In Research?

Linking Environmental Liabilities and Pollution Prevention Investment Decisions

For some time now, advocates of pollution prevention have argued that companies that consider their environmental liabilities can and will reduce those liabilities through pollution prevention. Although many firms have altered their practices because of the threat of environmental liability, there has been growing anecdotal evidence that lawyers and accountants often advise their clients not to estimate or document any information on potential liabilities, thereby reducing the attractiveness of pollution prevention investments. Accountants and lawyers offer this advice fearing that if potential liabilities are considered and documented, then businesses may be more likely to incur those liabilities or be required to report them to the Securities and Exchange Commission, to potential investors, and to others. The result may leave businesses caught in a "Catch 22": liability drives pollution prevention, but may also discourage it. To explore this issue and develop a framework for addressing it, EPA funded the Environmental Law Institute, a not-for-profit research institute, to explore the connection between various environmental liabilities (such as CERCLA, Criminal, Tort, etc.) and managerial decisions to prevent pollution. A managerial accounting framework is the filter for how managers consider liabilities in their decision-making. A draft of the study will be available early next year. EPA will seek comments on revising the draft as well as on the future direction of the project.

Cutting Edge Capital Budgeting Practices

During the last three years, EPA has developed limited data to suggest that conventional corporate cost accounting practices often lead to misrepresentation of the true profitability of pollution prevention investments. Beyond this data, however, little detailed information exists on how different types of firms have adjusted their cost accounting practices to capture the indirect, less tangible, and longer-term costs and savings associated with pollution prevention projects. Such information is essential to refining corporate managerial accounting practices so that they accurately capture and communicate to decision makers relevant information. To understand the extent to which U.S. manufacturing firms are utilizing financial analysis methods which incorporate "Total Cost Assessment" concepts, EPA is funding the Tellus Institute, a not-for-profit research institute, to conduct a survey of "current" and "best" practices. The study will begin this fall and should be completed next summer. Tellus and EPA have consulted the Institute of Management Accountants (IMA) to coordinate this effort with their current research agenda. For more information on the Tellus Institute's Study, contact Dr. Allen White, Director of Tellus's Risk Analysis Group at (617) 266-5400. For more information on IMA's current research projects, contact Julian Freedman, the IMA's Research Director at (201)573-9000.

