BEST PRACTICES IN IMPLEMENTING MANAGERIAL COST ACCOUNTING

OIG/00E-06 April 24, 2000

MEMORANDUM TO: Chairman Meserve

FROM: Hubert T. Bell
Inspector General

SUBJECT: BEST PRACTICES IN IMPLEMENTING MANAGERIAL COST ACCOUNTING

Attached is the Office of the Inspector General's Special Evaluation Report on our evaluation of best practices in implementing managerial cost accounting. The objective of this work was to identify and evaluate some of the best practices used in the government for developing and implementing managerial cost accounting. We met with several agencies and identified a number of successful practices, as well as pitfalls to avoid. Staff from the Office of the Chief Financial Officer (OCFO) participated in our discussions with other agencies, and we believe this interaction contributed to the success of our work.

We identified many best practices that can be considered by any agency developing its managerial cost accounting system. While these practices do not "guarantee" success, we believe they provide a sound basis for implementing cost accounting and help to mitigate the risks involved with such a project. We summarized our observations and best practices into the following four groupings: (1) Cost Accounting Strategy, (2) Agency Culture, Management Attitudes, and Core Competencies, (3) Project Implementation Practices, and (4) Commitment to the Process.

Since this report does not contain recommendations, we did not solicit formal agency comment. However, we briefed OCFO officials on our observations.

Attachment: As stated

cc: Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

REPORT SYNOPSIS

Public demand and budgetary pressures to reduce Federal spending have forced the government to improve accountability for the way it provides goods and services. Managerial cost accounting is one tool managers need to demonstrate accountability, improve program performance, and reduce program costs.

During fiscal year 1999, the U.S. Nuclear Regulatory Commission (NRC) took steps to implement managerial cost accounting. Because of the importance of this project, the Office of the Inspector General initiated an evaluation of best practices in the Federal Government for developing managerial cost accounting. The objectives of our work were to identify and evaluate the best practices used in government for developing and implementing managerial cost accounting. In addition, we considered the lessons learned and negative experiences to be avoided during the implementation process. Our goal is to share the results of our evaluation with the Agency.

Our work identified many best practices that can be considered by any agency developing its managerial cost accounting system. While these practices do not "guarantee" success, we believe they provide a sound basis for implementing cost accounting and help to mitigate the risks involved with such a project. We summarized our observations and best practices into the following four groupings: (1) Cost Accounting Strategy, (2) Agency Culture, Management Attitudes, and Core Competencies, (3) Project Implementation Practices, and (4) Commitment to the Process.

NRC has had little experience with cost accounting and is in the early stages of developing a cost accounting system. Therefore, instituting many of these practices would help ensure the success of this new management tool. In addition, because the concept of using managerial cost information takes time to understand, it would be advisable to initiate a training/communication strategy soon, before the system is complete. This will help sell the uses of the new system and the Office of the Chief Financial Officer will be able to obtain valuable feedback from the potential users. Finally, NRC needs to consider the long term use of managerial cost accounting, because as the agency matures with the use of cost information, the needs of this information will also change.

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INTRODUCTION

This report provides the results of the Office of the Inspector General's (OIG) special evaluation of the best practices in implementing managerial cost accounting in the Federal Government. The observations contained in this report are for the U.S. Nuclear Regulatory Commission's (NRC) consideration and require no written response. We shared this information with officials from the Office of the Chief Financial Officer (OCFO).

BACKGROUND

Public demand and budgetary pressures to reduce Federal spending have forced the government to improve accountability for the way it provides goods and services. The Chief Financial Officers (CFO) Act, Government Performance and Results Act (GPRA), Government Management Reform Act (GMRA), and the Clinger-Cohen Act provide the statutory foundation to better allocate resources and monitor program spending. Financial accounting, budgeting, and managing are three essential ingredients of accountability in the Federal Government. Managerial cost accounting is one tool managers need to demonstrate accountability, improve program performance, and reduce program costs.

Cost accounting information supports all three aspects of accountability and cost information supports decision making in a variety of different business environments, such as:

1 *Financial Accounting* - to assist Federal financial report users in evaluating service efforts, costs, and the accomplishments of the reporting entity;

2 *Budgeting* - to plan and make resource allocation decisions;

3 *Managing* - to manage resources in the accomplishment of broad program purposes, to manage the unit cost of output to ensure that units of output are produced as inexpensively as possible, and to set fees.

In each of these environments, management must know the cost of their activities in order to make good business decisions and to report financial and performance information to external parties such as Congress and the public.

In July 1995, the Federal Accounting Standards Advisory Board (FASAB) issued a new standard, Statement of Federal Financial Accounting Standards (SFFAS) No. 4, "Managerial Cost Accounting Standards." This standard required Federal agencies to develop and implement cost accounting practices and techniques beginning with fiscal year (FY) 1997. FASAB stated that "reliable and relevant cost information is indispensable for implementing the requirements of the Government

Performance and Results Act." However, in FY 1997, the FASAB delayed the implementation of this standard until FY1998.

During FY 1999, NRC took steps to implement managerial cost accounting. The Agency's plan contains three phases, primarily concentrating on information system development for data collection. The plan focuses on providing management with the appropriate tools to generate useful cost information. Cost reports issued for management's use are not addressed until the final months of the plan, near the end of calendar year 2002.

Because of the importance of this project, the OIG initiated an evaluation of best practices in the Federal Government for developing managerial cost accounting. The objectives of our work were to identify and evaluate the best practices used in government for developing and implementing managerial cost accounting. In addition, we considered the lessons learned and negative experiences to be avoided during the implementation process. Our goal is to share the results of our evaluation with the Agency. Appendix I contains a detailed description of our objectives, scope, and methodology.

OBSERVATIONS AND BEST PRACTICES

In this early stage of implementing SFFAS No. 4, many agencies are experiencing several of the same challenges as NRC. Some are developing integrated financial management systems where managerial cost accounting is only one component of an entire system. At many of those agencies, implementation of managerial cost accounting has not been initiated to a level where we could learn from their experiences. But through our external agency contacts, we identified several organizations that could share their experiences with us.

Our work disclosed many best practices for implementing managerial cost accounting. While these practices do not "guarantee" success, we believe they provide a sound basis for implementing cost accounting and help to mitigate the risks involved with such a project. We summarized our observations and best practices into the following four groupings: (1) Cost Accounting Strategy, (2) Agency Culture, Management Attitudes, and Core Competencies, (3) Project Implementation Practices, and (4) Commitment to the Process.

COST ACCOUNTING STRATEGY

One of the best practices we identified was an agency-developed strategy that clearly defines the objectives and uses of cost accounting. Those agencies shared the strategy with all levels of staff throughout their agency during the system development. These strategies embraced cost accounting for the same purposes that are described in SFFAS No. 4:

(1) Budgeting and cost control,
(2) Performance measurement,
(3) Determining reimbursements and setting fees and prices,
(4) Program evaluations, and
(5) Making economic choice decisions.

Because the strategies encompassed a broad range of activities, it was important to communicate and coordinate this information to all offices throughout the agencies. Below are a few examples of how some agencies were applying managerial cost accounting.

GPRA

We observed that management believed that cost information provides another tool to be used for decision making and can be considered during planning and budgeting. Some agencies aligned their financial system data, including cost accounting, with the agency's strategic plans and goals, and intended to use cost information wherever possible as performance measures. These agencies coordinated GPRA efforts with the development of cost accounting.

Accountability

At some agencies, managers are held accountable for the use of their resources. These managers can receive rewards (bonuses) when, and if, they exceed their expected performance. Not all of their performance measures were cost-based, but how efficiently the managers used their resources was one of several performance measures.

Fees and full cost recovery

We learned that many agencies using managerial cost accounting are required to recover the full cost of their budgets through fees. These agencies either use cost accounting, or intend to use cost accounting, to help assess and develop their fee structures and to ensure that the agency is recovering the full cost of its activities.

AGENCY CULTURE, MANAGEMENT ATTITUDES, AND CORE COMPETENCIES

An agency's culture plays an important role in the success of implementing managerial cost accounting. Some agencies emphasize and practice good financial management, intending to set an example that other agencies can emulate. These agencies have taken the lead in implementing managerial cost accounting and have been willing to share their experiences with other agencies. A culture of practicing good financial management is influenced by senior management attitudes and staffing capabilities.

Senior management buy-in and support

We recognized that success was easier for those agencies that had support from senior management, both at the most senior level (equivalent to NRC's Chairman) and from the Executive Director for Operations (or equivalent) and CFO levels. These managers placed a high priority on the success of managerial cost accounting and made their expectations known. They believed managerial cost accounting would help to better manage projects and could be used as a planning tool. For example, at the National Aeronautics and Space Administration (NASA), we learned that the Administrator needs cost information to help determine how agency resources have been used. He has been one of the driving forces behind developing full cost accounting.

Core staffing competencies

Most agencies that have successfully implemented cost accounting hired experienced cost accountants to augment their financial management core competencies. The cost accountants help develop managerial cost accounting and manage the process after system implementation, because managerial cost accounting is not static.

In addition, we observed that in some agencies, top-level OCFO management had years of experience in cost accounting and were heavily involved in promoting and establishing the uses of cost accounting. At the U.S. Mint and at NASA, senior OCFO management acted as cost accounting "champions" guiding the agency into using a new management tool.

To provide some perspective on the staffing levels of cost accountants at two agencies similarly sized to NRC, the U.S. Mint has approximately 2,700 FTE[1] and one division has 3 FTE dedicated to cost accounting. The Bureau of Engraving and Printing has approximately 2,600 FTE and has 5 FTE dedicated to cost accounting. Although these two agencies are primarily manufacture-based, there are many lessons that can be learned from their experiences that can be applied to a service-oriented organization.

Of the agencies we visited, staff informed us that good cost accountants require a slightly different set of skills than financial accountants. We learned that quality cost accountants need three abilities:

- Excellent analytical skills,
- Outstanding communication skills, and
- A good understanding of the agency's activities and the processes used to accomplish those activities.

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1 FTE is the abbreviation for Full-time Equivalency (2,080 labor hours per year).

An understanding of the processes is significant because part of quality cost analysis includes identifying those inefficient processes that could be re-engineered, and communicating this information to managers. Of the agencies we visited, the communication process was a vital element for guiding managers on how to interpret and use cost information. This is especially true during the developmental stage of managerial cost accounting.

Supplemental resources

During the development of managerial cost accounting, most agencies use supplemental resources to support the project. Each agency used different strategies to supplement their core staffing. The following are examples of supplemental staffing.

- One agency, which had several cost accountants, used a personal service agreement to temporarily hire a cost accounting expert. This expert acted as an advisor during the development and implementation of their strategy.

- Other agencies hired consulting firms, in addition to their in-house cost accountants, to help with the training, development and installation of cost accounting software.

In both of the above examples, the agencies hired consultants to supplement their existing cost accounting resources and did not rely on the consultants as the sole experts familiar with cost accounting. One agency OIG that we visited had serious concerns about the over reliance of using a single contractor when an agency did not have adequate in-house staff experience with cost accounting. Such situations are echoed by the General Accounting Office (GAO). According to GAO, agencies need to develop and retain quality staff to better manage contractors, such as consultants, thus maintaining control of the activities that have been outsourced.

PROJECT IMPLEMENTATION PRACTICES

Managerial cost accounting has a broad range of uses. And if it is to be used effectively, much effort will be required to develop and implement this new management tool. We identified several project implementation practices which helped ensure the successful use of managerial cost accounting. These were the use of: (1) teams or committees, (2) pilot testing, (3) communication, (4) an interim period, and (5) OIG involvement.

Teams/committees

In nearly every organization we contacted, teams and/or committees were used during the development and implementation of their systems. These multilevel groups were used to provide guidance and policy direction.

Most organizations had more than one type or level of grouping. The most common arrangement was the use of three different groupings for three different purposes:

- A team to develop and make policy decisions,
- A team for developing the details of the cost accounting process, and
- A team to obtain and disseminate information.

Each team varied in size and composition depending on the purpose of the group. There was usually one project manager common to all three teams to ensure coordination between the teams and the project. Nearly all teams were composed of multiple layers of personnel depending on the purpose of the group, and all needed some participation with the users of cost information.

One agency mentioned, as a lesson learned, that they would include more user level staff (e.g., project managers) on the working groups to gain insight into the needs of the users and to help disseminate the benefits of cost information. In addition, they would include this user level earlier in the development process, since adding a new tool for management application takes a relatively long period of time.

We noted that a team's success relied on clearly defined objectives (or a team charter) and dedicated team members. This did not occur at one agency we contacted. In the early stages of the project, they attempted to use a committee to help develop a managerial cost accounting strategy. However, a charter had not been developed to define the purpose of the team. The participants disagreed on how to approach the project, lost interest, and eventually disbanded. That agency is still facing many challenges in the process of implementing its system.

Pilot projects and testing

The use of pilot projects to implement managerial cost accounting was fairly common. A pilot allows for testing the system and processes in a restricted environment, before implementing it agencywide.

A few agency representatives provided the following lessons learned comments about pilot projects:

- One agency, which did not use a pilot, believed it would have been easier and more effective if they had used a pilot. Because "bugs" still needed to be worked out, their process became very cumbersome and time consuming when implementing cost accounting agencywide.

- In contrast, another agency that did use a pilot, still had troubles when they expanded the system agencywide. They had not predicted how diverse their agency was from region to region; therefore, expanding the use of managerial cost accounting from one site to agencywide became more challenging than they

expected. Upon reconsideration, they would still use a pilot, but try to take into account the differences between the regions during the trial phase and during the process of expanding the system.

Most managers believe that a pilot allows for some experimentation prior to going agencywide and should make the process easier. In addition, some managers use the pilot organization(s) to help other organizations when the system is expanded agencywide. One of the best practices identified was to initiate a pilot to test and develop reports, then use the results of that pilot to gradually phase-in different sections of the agency, thus allowing for unexpected differences to be worked out before moving on to the next section.

Communication

As with any major project, communication is crucial to the successful implementation of managerial cost accounting. We noted three forms of communication that should strengthen the implementation process.

1 - Documented agency guidance:

- One of the first steps in implementing full cost at NASA was to prepare a guide and make it available to the entire staff. As the process progressed, NASA updated its guide, which is available on the internet[2].

- In addition to a guidance document that can be used as a reference, other forms of communication (primarily meetings) are used to support the guidance by continuously sharing the vision, strategy, and progress with the program staff, unions, management, and external entities.

2 - Agency training:

- Part of communication includes training. Most of the individuals with whom we met were emphatic that it was important to educate as many personnel as possible and start the training process as early as possible. This will accomplish two things:

  (1) Prepare staff for the impending changes, and

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2 Although developing an implementation guide can be time consuming, we note that the CFO Council has prepared the "The Managerial Cost Accounting Implementation Guide," (published February 1998) which is an excellent resource that can not only help an agency develop managerial cost accounting, but also help to develop a similar document such as the guide prepared by NASA. The CFO Council implementation guide is available through the Joint Financial Management Improvement Program's website: http://www.financenet.gov/financenet/fed/jfmip/reports.htm

(2) Obtain feedback that will help identify the potential needs of managers.

- One agency representative commented, as a lesson learned, that the agency would have provided more training earlier in the process to help management change and to promote the uses of managerial cost accounting.

- We were also informed that training can be used for two-way communication. The trainees provided feedback that helped in refining cost data collection and developing cost reports.

3 - Cost accountant participation:

- At some agencies, which have used cost accounting for a few years, it became apparent that some users of cost reports did not always understand the reports. The cost accountants have taken the extra effort to meet with project-level managers to help interpret the cost information. The cost accountants are responsible for ensuring that users receive useful information and are able to understand it. Interestingly, at these agencies, managers were accountable for the use of resources and needed to gain an understanding of cost information to make quality decisions.

Use of the interim period

Developing a managerial cost accounting system takes time, especially when that system is one component in the development of an integrated financial management system. During the interim period, when the system is under construction, some agencies attempted to develop and use managerial cost accounting based on manual processes and cost finding techniques which could be incorporated in the system.

Of those agencies using this approach, it was noted that the interim period was a useful time to test costing modules and allocation methods via trial and error. This had the added benefit of educating users while obtaining feedback. The cost accountants found that as managers become more familiar with the reports, they provide feedback to the cost accountants. This results in refining the information, making it more useful. The iterative process accelerated the development of prototype processes and reports.

As a lesson learned, management at NASA said they wished they could have started developing these methods earlier during the interim phase, since there was much to gain from it. For instance, the process to change the mind set of management takes time, and participation during the interim phase helps make that transition.

Another factor a few agencies learned during their interim phase was recognizing that it was more important to provide timely cost reports than to provide precisely accurate cost reports. But in either case, it was always important to provide useful and reliable data in the reports.

OIG involvement

Some agencies benefitted from OIG involvement. Examples of involvement included the following three items: (1) acting as consultants (for example, the U.S. Department of Agriculture OIG has a staff of approximately 750 people, and can maintain independence by restricting their "consultants" from conducting audits in the area they recently assisted), (2) participating on system development teams to a limited extent, and (3) reviewing proposed methodologies to be used for cost accounting.

COMMITMENT TO THE PROCESS

The uses of managerial cost accounting are diverse and require a change in management attitudes and practices. For example, the typical government manager is familiar with the practice of managing "to the budget," where the success of a project can be measured by the ability to execute a project within the budgeted costs and time frame. In contrast, managerial cost accounting provides new measures of resource usage, where success could be measured by the ability to execute a project using the most cost-effective means. Quality cost information can inspire new users to question high costs and consider alternative methods to accomplish an activity. This is especially true when managers are accountable for their resources.

Many agencies have recognized that user needs for managerial cost information change over time. Those that have used cost accounting for years continuously refine the data collection to gain a better understanding of costs. As some agencies become more familiar with cost information, they recognize the need to convert to Activity-Based Costing (ABC). While some agencies do not always see a benefit in using ABC, they periodically modify their allocation methods to provide more meaningful information for management's use. Thus, managerial cost accounting should be changing with changes in the agency and the needs of the users.

CONCLUSION

Our work identified many best practices that can be considered by any agency developing its managerial cost accounting system. Because NRC has had little experience with cost accounting and is in the early stages of developing a cost accounting system, instituting many of these practices would help ensure the success of this new management tool. In addition, because the concept of using managerial cost information takes time to understand, it would be advisable to

initiate a training/communication strategy soon, before the system is complete. This will help sell the uses of the new system and the OCFO will be able to obtain valuable feedback from the potential users. Finally, NRC needs to consider the long term use of managerial cost accounting, because as the agency matures with the use of cost information, the needs of this information will also change.

We believe NRC should give consideration to the practices we have identified in this report as well as their timing, because most of them can be applied to this agency.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of our review were to identify and evaluate some of the best practices used in government for developing and implementing managerial cost accounting. In addition, we considered the lessons learned and negative experiences that should be avoided during the implementation process. Our goal is to share the results of our evaluation with the Agency.

To gain a broad view throughout the Federal Government of the progress in implementing managerial cost accounting, we met with representatives from twelve different agency Offices of the Inspector General. After obtaining a perspective on the progress and the relative successes of cost accounting in those agencies, we selected seven organizations to visit and learn about the practices they applied (or are currently applying.)

At this time, only four program offices (from the seven organizations) were contacted as part of this work. Initially, on their own, staff from the U.S. Nuclear Regulatory Commission's (NRC) Office of the Chief Financial Officer met with staff in the Patent and Trademark Office and shared some of the materials with us. Later, NRC staff accompanied us on our visits with three of the remaining organizations; the National Aeronautics and Space Administration, the Bureau of Engraving and Printing, and the U.S. Mint. Although we have not yet met with the remaining three selected organizations, we believe it is important to share the successful practices we identified to date. Though this work was initiated in July 1999, it is still an ongoing project.

ABBREVIATIONS AND ACRONYMS

ABC	Activity-Based Costing
BEP	U.S. Department of Treasury, Bureau of Engraving and Printing
CFO	Chief Financial Officer
FASAB	Federal Accounting Standards Advisory Board
FTE	Full-time Equivalents (2,080 labor hours per year)
FY	Fiscal Year
GAO	U.S. General Accounting Office

GMRA	Government Management Reform Act of 1994
GPRA	Government Performance and Results Act of 1993
NASA	National Aeronautics and Space Administration
NRC	U.S. Nuclear Regulatory Commission
OCFO	Office of the Chief Financial Officer
OIG	Office of the Inspector General
SFFAS	Statement of Federal Financial Accounting Standards

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GLOSSARY: OFFICE OF THE INSPECTOR GENERAL PRODUCTS

INVESTIGATIVE

1. *INVESTIGATIVE REPORT - WHITE COVER*

An Investigative Report documents pertinent facts of a case and describes available evidence relevant to allegations against individuals, including aspects of an allegation not substantiated. Investigative reports do not recommend disciplinary action against individual employees. Investigative reports are sensitive documents and contain information subject to the Privacy Act restrictions. Reports are given to officials and managers who have a need to know in order to properly determine whether administrative action is warranted. The agency is expected to advise the OIG within 90 days of receiving the investigative report as to what disciplinary or other action has been taken in response to investigative report findings.

2. *EVENT INQUIRY - GREEN COVER*

The Event Inquiry is an investigative product that documents the examination of events or agency actions that do not focus specifically on individual misconduct. These reports identify institutional weaknesses that led to or allowed a problem to occur. The agency is requested to advise the OIG of managerial initiatives taken in response to issues identified in these reports but tracking its recommendations is not required.

3. *MANAGEMENT IMPLICATIONS REPORT (MIR) - MEMORANDUM*

MIRs provide a "ROOT CAUSE" analysis sufficient for managers to facilitate correction of problems and to avoid similar issues in the future. Agency tracking of recommendations is not required.

AUDIT

4. *AUDIT REPORT - BLUE COVER*

An Audit Report is the documentation of the review, recommendations, and findings resulting from an objective assessment of a program, function, or activity. Audits follow a defined procedure that allows for agency review and comment on draft audit reports. The audit results are also reported in the OIG's "Semiannual Report" to the Congress. Tracking of audit report recommendations and agency response is required.

5. *SPECIAL EVALUATION REPORT - BURGUNDY COVER*

A Special Evaluation Report documents the results of short-term, limited assessments. It provides an initial, quick response to a question or issue, and data to determine whether an in-depth independent audit should be planned. Agency tracking of recommendations is not required.

REGULATORY

6. *REGULATORY COMMENTARY - BROWN COVER*

Regulatory Commentary is the review of existing and proposed legislation, regulations, and policies so as to assist the agency in preventing and detecting fraud, waste, and abuse in programs and operations. Commentaries cite the IG Act as authority for the review, state the specific law, regulation or policy examined, pertinent background information considered and identifies OIG concerns, observations, and objections. Significant observations regarding action or inaction by the agency are reported in the OIG Semiannual Report to Congress. Each report indicates whether a response is required.