



LM110292

110292

STUDY BY THE STAFF OF THE U.S.

General Accounting Office

Improvements Needed In The Tennessee Valley Authority's Management And Use Of Its Automatic Data Processing Resources

TVA makes extensive use of automatic data processing resources (e.g., equipment, software, and personnel). The value of its ADP capital equipment was about \$10 million in fiscal year 1978. TVA plans to invest an additional \$54 million in new computer equipment over a 6-year period starting in 1980. Annual ADP operating expenses for fiscal year 1980 are projected to exceed \$42 million.

This report assesses TVA's management and use of ADP and points out certain weaknesses in management's planning, control, and review of these resources. Specifically, TVA does not have the degree of top-management involvement; central management direction, coordination, and control; or the planning process needed to increase effectiveness and achieve significant savings. Also, the procedures and studies used to justify the need for future ADP equipment purchases are questionable.

GAO recommends several improvements to remedy these weaknesses.



110292

006724 / 110292

EMD-79-102
SEPTEMBER 6, 1979



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ENERGY AND MINERALS
DIVISION

B-115369

SEPTEMBER 5, 1979

Dr. S. David Freeman
Chairman, Board of Directors
Tennessee Valley Authority

Dear Dr. Freeman:

We reviewed the management and use of general-purpose automatic data processing (ADP) resources in the Tennessee Valley Authority (TVA). The primary purpose of our review was to evaluate the effectiveness of agency policies and procedures for (1) planning, controlling, and reviewing ADP activities and systems and (2) identifying and acquiring ADP hardware and related services.

Ineffective use of computers, people, and other ADP resources translates into wasted time and dollars and could result in higher utility rates for TVA's customers. Presently, a 1-percent rate increase is required to cover each \$32-million increase in annual operating expenses of TVA's power program.

TVA manages ADP hardware and software differently. Each office and division of TVA is responsible for planning, developing, and maintaining its own information systems; ie., ADP software. In contrast, the Computing Services Branch, Division of Property and Services has centralized responsibility for planning, acquiring, and operating TVA's general-purpose ADP hardware.

TVA makes extensive use of ADP resources. The value of its ADP capital equipment was about \$10 million in fiscal year 1978. TVA plans to invest an additional \$54 million in new computer equipment over a 6-year period starting in 1980. TVA spent about \$25 million in fiscal year 1978 to develop, maintain, and operate its computer applications. Annual operating expenses for fiscal year 1980 are projected to exceed \$42 million.

Our review disclosed weaknesses in TVA's ADP planning structure and process. TVA does not have the degree of top-management involvement; central-management direction, coordination, and control; or the planning process needed to increase effectiveness and achieve significant savings. Our specific findings are as follows:

- X--TVA does not have an agencywide plan which can be used as a management tool for measuring and controlling ADP activities.
- Top management generally has not supported the development of agencywide ADP systems which offer the potential for substantial cost savings.
- Management has not required all offices and divisions to use available management systems which offer the opportunity to better control ADP system design and development.
- Procedures are not adequate to ensure compliance with applicable laws and regulations governing acquisitions of ADP-related services.
- Adequacy of the justification for future ADP equipment is questionable.
- Additional emphasis is needed on the organization, authority, and responsibility of the ADP audit function.

NEED FOR AGENCYWIDE
ADP PLANNING

Presently, TVA does not have an agencywide ADP plan which can be used as a management tool for measuring and controlling ADP activities. Also, top management has not established the necessary organization, goals, policies, or procedures that facilitate agencywide ADP planning. TVA officials state that a plan identifying priorities and strategies will be developed by the Division of Management Systems.

The importance of ADP planning is emphasized by the Office of Management and Budget Circular A-71. This circular assigns to the heads of Federal agencies the authority and responsibility for the effective and efficient management of their ADP activities including planning, coordination, and control of the use of these resources (e.g., equipment, software, and personnel).

We believe an agencywide ADP plan is necessary to provide a basis for short- and long-range ADP decisionmaking and for setting ADP priorities. This is the final product of the planning process and should reflect agency ADP goals and strategies. The plan should help (1) ensure that the agency's ADP program meets mission requirements in an efficient and economical manner, (2) identify opportunities to eliminate waste and duplication, (3) set measurable milestones to achieve stated goals and objectives, and (4) measure and control ADP activities.

The Computing Services Branch examined TVA's long-range computing requirements and, in August 1976, issued its first ADP Management Plan. This plan, however, focuses on the Branch's activities of providing general-purpose ADP facilities and services; it does not critically assess the validity of user projections of needs and has not been updated since 1976.

Also, in four user organizations, which account for more than 75 percent of the computer usage in TVA, we found two did not have any type of plan, one had an outdated plan for part of its organization, and one had a plan, but like the Computing Services Branch plan, it was restricted in scope and of limited agencywide use.

Effective ADP planning is heavily dependent on how the agency organizes to accomplish the planning function, as well as how the responsibilities for planning are assigned. It is important in a decentralized organization that a central office be given the responsibility and authority to direct, coordinate, and review all ADP planning.

The idea of a central staff with responsibility for agencywide ADP planning is not new to TVA. A 1974 management consultant study of computing functions recommended that TVA establish a top-management committee to formulate agencywide ADP objectives and policies, and approve 1- and 5-year ADP plans. TVA created a Corporate Information Systems Staff--responsible for overall ADP planning--and a Systems Technical Advisory Committee to recommend agencywide ADP goals, policies, and procedures.

Organizationally, the Corporate Information Systems Staff was placed in the General Manager's Office, but only one person was assigned to the staff, and that person was not given authority over the ADP planning done by the user organizations. Likewise, the Systems Technical Advisory

Committee was not given the required support to accomplish its objectives. In September 1977 the committee reported the need in TVA to establish agencywide data policies and procedures, but we found no evidence that top management acted on this recommendation.

NEED FOR INTERDIVISIONAL
SYSTEMS DEVELOPMENTS

TVA's top management generally has not supported the design, development, or implementation of agencywide ADP systems, which offer the potential for substantial cost savings. In general, ADP systems are designed on an organizational basis to accomplish specific tasks or to support management in a single organization.

For example, the directors of three service divisions realized that, to some extent, each division was duplicating the efforts of others in collecting, storing, and processing personnel-related data. Although the three divisions generally cooperated in sharing stored data, little had been done to coordinate and share systems and their costly development and operation. In November 1976, the General Manager, at the request of the three directors, authorized \$199,000 to develop a design concept for an Integrated Personnel Data System. During July and August 1977, the design concept was presented to the division directors. According to the Project Manager, individually each director liked the design concept, but collectively, they would not agree to relinquish total control over their processing activities. The Project Manager told us significant dollar savings could have resulted from implementing this system; but the primary benefit would have been improved processing procedures. Two other examples of interdivisional systems development opportunities are (1) an automated records management system--which could be common to most offices and divisions--and (2) an integrated coal information system--which could provide common information to those offices and divisions involved in the acquisition, storage, and consumption of coal.

The importance of integrated systems is best illustrated by TVA's only interdivisional system, the Materials Management System. Initiated in mid-1975, the development project has direct participation of the General Manager's Office and seven TVA divisions. The system will have a significant impact on the operation of many TVA organizations because it (1) deals with the full range of activities in the typical materials cycle, (2) deals with materials cataloging, requisitioning,

and supports the procurement process, (3) processes the items at the point where they are received, and supports the management of materials at the storerooms and plant sites, and (4) supports accounting functions associated with these activities. TVA estimates that savings attributable to this project exceeded \$11 million for 1978, with reoccurring annual savings of \$14 million, once the system is fully implemented.

NEED FOR IMPROVED MANAGEMENT CONTROL

TVA has not implemented the controls needed to ensure that its ADP activities are being managed agencywide in the most effective manner. We found that (1) while TVA has agencywide policies and procedures for systems development--including project authorization and management--they have not been fully and uniformly implemented and (2) TVA has not implemented uniform financial and estimating controls. As a result, we believe TVA cannot effectively allocate its ADP resources among the many competing ADP activities of the various independent organizations.

Lack of uniform interpretation and application of project authorization procedures

The project authorization process is an important aspect in the management and control of systems development activities. Without the specific review and approval from top management that this process provides, the supervisors, managers, and users of the systems can undertake activities which are too expensive to develop or operate, or which are not in the agency's best interest. However, procedures for obtaining project authorizations for systems development projects in TVA are not uniformly interpreted and consistently applied.

TVA's management regulations require that development activities costing \$100,000 or more receive prior approval by the General Manager. The regulations, however, are not being interpreted or applied uniformly. For example, one manager we interviewed felt that the project approval regulation did not apply if the system was in support of an approved project or ongoing activity. Another manager felt that ADP systems were no different from other systems, and therefore, specific prior approval was required by the General Manager if it met the cost criteria. Examples of inconsistent application of the regulation were

- development of a \$230,000 system to support an ongoing activity without the General Manager's approval;
- development without prior General Manager approval of two separate systems, each estimated to cost more than \$100,000, neither designed to support any other authorized project; and
- development of two separate systems costing more than \$100,000 each, after General Manager's approval.

Need to establish and implement additional agencywide policies and standards

The Corporate Information Systems Staff and a Systems Technical Advisory Committee were created in 1975 to recommend agencywide ADP policies and procedures. However, only one ADP policy statement has resulted from their recommendations. This policy, issued by the Assistant to the General Manager for Planning, Budget and Systems, required TVA's offices and divisions to implement a standard approach for system design and development; but as pointed out by an internal TVA audit report, issued November 1978, this policy has not been fully implemented.

ADP standards establish procedures to obtain the best results and serve as criteria to measure the quality of work. Other Government agencies have identified the use of standards as a way to reduce program conversion costs and facilitate competitive procurements.

TVA plans to replace its existing central computer system beginning in fiscal year 1980. The Computing Services Branch estimates conversion costs of \$6-19 million if the new computing equipment is compatible to TVA's present equipment. If noncompatible equipment is acquired, the conversion costs could be as high as \$54-60 million.

Most of TVA's computer software has been developed using nonstandard languages and language features. TVA feels that the use of nonstandard languages and language features has resulted in operating efficiencies. However, GAO previously has reported that the savings in conversion cost through use of transferable high level languages generally more than offset these operating efficiencies.

TVA stated, in response to our draft report, that adequate language standards do not exist. We note, that

while COBOL is the only application programming language for which a Federal standard exists, both FORTRAN and PL-1 have a standard approved by the American National Standards Institute.

Need for policies and procedures
for staff utilization

The Systems Applications and Development Section of the Computing Services Branch was established to provide systems planning and development services to those offices and divisions which do not have their own staff, and to supplement the staffs of other groups when necessary. We found that this staff spent less than 50 percent of its available time assisting users during 1978 with the remaining time spent on projects for the Computing Services Branch. An example of this lack of policies and procedures was shown by one division requesting proposals from the Computing Services Branch and several commercial vendors. The Branch analyzed the Division's request and determined that its staff could perform the work and reported this to the Division. Nevertheless, the Division awarded the contract to a commercial vendor at a higher cost because TVA did not have written policies and procedures which specify the criteria for using the Branch's staff.

Need for uniform financial and
estimating controls

It is the responsibility of management to estimate resources needed, establish target dates for completing phased activities, schedule, and monitor all activities performed during the systems development process. As a systems development project progresses, it becomes increasingly important that costs associated with specific phases of development be compared to estimates. Such information enables management to evaluate progress and performance and decide whether systems development projects should be continued, revised, or terminated. These comparisons are meaningless unless uniform cost accounting procedures are established and used for systems developments.

TVA exercises no uniform financial or budgetary control over systems development. A standard approach to managing information system projects is needed to budget, monitor, and control developments. In early 1979, TVA

purchased a commercial system for this purpose, and each organization is being urged to use the standard system, but according to an agency official, adoption is not mandatory and will not be easy because each organization uses its own approach.

PROPER DELEGATIONS OF AUTHORITY
NOT OBTAINED BEFORE CONTRACTING
FOR ADP-RELATED SERVICES

TVA did not, in several instances, obtain the necessary delegations of procurement authority (DPA) from the General Services Administration (GSA) as required by Federal Property Management Regulations before contracting for ADP-related services. These regulations establish policies for the management, acquisition, and use of ADP and apply to all Federal agencies including wholly-owned Government corporations. Agencies do not have the authority to contract for ADP-related services without a DPA. One reason for this requirement is to assure utilization of Government resources, if available, before contracting with outside firms. We noted instances where TVA did not obtain a DPA before contracting for ADP-related services. One example was a \$10.2 million contract for design and development of the Materials Management System discussed earlier. Project management was informed by the Computing Services Branch of the requirement for a DPA, but they decided the need for expert management assistance took precedence over the need for strict compliance with the Federal Property Management Regulations. TVA stated, in reply to our draft report, that there is question about the applicability of the DPA requirement to this type of personal services contract. However, the Federal Property Management Regulations define personal services to include personnel involved in the design and development of ADP systems. TVA recognized at the outset that the major monetary outlay for the materials management contract was for analysts and programmers. Another example was a \$252,000 contract for the design and implementation of an automated energy-economy model.

TVA's management regulations assign responsibility for obtaining DPAs to the Computing Services Branch while the Division of Personnel is responsible for the award of personal service contracts. TVA correspondence and instructions dated February 1973 requested that such contracts be coordinated with the Computing Services Branch, but users did not do so in the instances cited. A recent Internal Audit report also showed that many contracts for ADP services have not been sent to GSA for a DPA. TVA officials have stated that they are now taking steps to improve personal services contracting procedures.

We believe that the regulations should be revised to clearly define the responsibilities and procedures for obtaining a DPA. The Acting Director of Personnel told us that the regulations are being rewritten, and our findings would be considered.

QUESTIONABLE PROCEDURES AND
STUDIES USED TO JUSTIFY FUTURE
ADP EQUIPMENT NEEDS

TVA plans to replace its existing central computer system beginning in fiscal year 1980. Based on TVA's estimates, the replacement will result in the following cost over a 6-year period.

	Estimated computer system cost (note a)	
	<u>Low</u>	<u>High</u>
	----- millions -----	
Equipment purchases	<u>b/\$54.0</u>	<u>b/\$54.0</u>
Physical facilities	12.1	13.9
Software conversion	6.2	60.1
Operations personnel	<u>b/34.2</u>	<u>b/34.2</u>
User training	0.0	0.2
Maintenance	<u>b/8.0</u>	<u>b/8.0</u>
Subtotal	<u>\$114.5</u>	<u>\$170.4</u>
Less:		
Expected recovery of equipment cost	28.5	28.5
Recovery of facilities cost	<u>9.7</u>	<u>11.1</u>
Total 6-year life cycle cost	<u>\$ 76.3</u>	<u>\$130.8</u>

a/These estimates do not include costs associated with the planned purchase of 87 additional minicomputers.

b/TVA's estimates were based on a 5-year life. However, discussions with TVA officials disclosed that they should be based on a 6-year life. Accordingly, we adjusted TVA's estimates.

GSA's Federal Property Management Regulations and other policies and regulations implementing the Brooks Act (P.L. 89-306), require agencies to fully document the need for additional ADP equipment. This documentation should include general systems and/or feasibility studies.

Between September 1976 and September 1977, TVA prepared several documents that serve as the justification for procuring additional ADP equipment. We found TVA's justification for additional ADP equipment was based on a series of annual projections of the computing processing unit (CPU) resource requirements. These projections were made by TVA's user organizations.

In preparing these projections, the Computing Services Branch furnished each user organization with historical usage data and a linear projection based on that data. The linear projections were modified by the users and returned to the Branch. The aggregate of user modified projections guide the Branch's efforts to provide general use computing resources to each user.

The use of these procedures to determine TVA's long-range CPU requirements is questionable because:

- Available CPU resources are allocated on the basis of these projections, thus, there is a strong incentive for users to overstate their projections to insure an adequate allocation.
- The applications upon which these projections are based are not validated, thus, these projections could reserve future CPU resources for existing marginal and duplicate applications.
- The time period used for these projections was characterized by a high rate of new application development; thus, the usage data from this period of time--if used to linearly forecast the future--will compound the high rate of growth and overstate future CPU requirements.

In addition, the four user organizations which accounted for more than 75 percent of TVA's computing workload were in the process of implementing minicomputers to augment TVA's central computer system. The addition of a minicomputer can have a significant impact on an organization's use of the central computer. For example, in one division, average usage of the central computer dropped 61 percent in the 3 months

following installation of a minicomputer. However, the impact of these minicomputers on the central computer's workload was not specifically identified in the user's forecasts for CPU resources.

The Federal Property Management Regulations do not contain specific guidance on the format and content for general systems/feasibility studies. However, the Bureau of the Census has determined that a well-documented study should, as a minimum include the following major objectives. GAO also believes that a well-documented general systems feasibility study should include these objectives:

- A clear statement of near- and far-term ADP objectives.
- A sound, management-backed strategy for achieving these objectives.
- A concise, well-documented statement of existing and future requirements for computer support. This requires a complete, accurate inventory of current and planned applications, identification of mission-essential applications, and ranking of the incremental resource demands for nonmission essential applications; an assessment of whether each existing and planned application meets the agency's needs; how much computer and communications capacity is required to support the applications identified; how the capacity will be deployed--between central systems, minicomputers, and remote terminals; and an outline of the communications network required to tie this capacity together.
- A statement that identifies, develops, and analyzes each technical and economic alternative for meeting application support requirements effectively, efficiently, and economically.

We reviewed TVA's justification studies and concluded that they did not address these objectives.

NEED FOR INCREASED EMPHASIS ON
ADP AUDITS

The increasing use of computer and communications technology throughout Federal agencies has introduced a variety

of new management problems. Among these is the need for assuring adequate management control over the ADP function. ADP auditing is recognized as an important tool to monitor and control operations. We believe that TVA can realize benefits if the importance of this function is emphasized.

Presently, despite the widespread use of ADP throughout TVA, the coverage of these activities by the internal audit group has been limited. In fiscal year 1978, two auditors were assigned full-time responsibility for ADP audits. This group has made four reviews, but only one involved an ADP subject of agencywide importance.

TVA had not approved a charter for the ADP audit group as of April 1979. Some divisions have, on occasion, questioned the internal auditor's authority to audit their activities.

TVA's independent auditors have also recognized the need for increased emphasis on ADP audits. These auditors have stated that benefits would accrue to TVA if additional emphasis is given to developing ADP audit capability.

RECENT ADP ORGANIZATIONAL CHANGES

TVA management has recognized the need to improve planning and control over ADP resources and during our review announced a reorganization which included the creation of a Division of Management Systems. Because this Division had not been provided an approved charter and was not fully staffed at the completion of our review in April 1979, we could not determine whether it would have central authority and responsibility for management of systems design and development in TVA. We reviewed the Division's draft mission statement and noted that it provides for oversight responsibility for systems design and development, but it has no authority over the 23 decentralized systems planning and development staffs in the other TVA organizations. We believe in a decentralized organization like TVA, it is important to establish a central office with the responsibility and authority to plan and control ADP activities, based on top management guidance.

AGENCY COMMENTS

TVA generally agrees with the report's observation that more needs to be done to strengthen management and control over its ADP activities. TVA felt, however, that

the draft report did not properly acknowledge that management has recognized these deficiencies and are taking steps to improve management's control over ADP activities. We recognize this concern in the final report.

TVA disagrees with our conclusion that their justification for procuring additional ADP equipment was questionable. TVA contends that the use of annual usage projections based on historical data does not make their validity questionable. We agree. However, our concern is that the procedures used by TVA to develop the estimates are questionable from the standpoint that (1) users have a strong incentive to overstate their projections because their current resource allocations are based on their projections, (2) the unvalidated applications upon which the usage projections are based could reserve future CPU resources for existing marginal and duplicate applications, and (3) this data--when used to linearly forecast future requirements--will compound the high rate of application growth and will overstate future CPU requirements. TVA did not take issue with these statements.

TVA states these computer resource projections were used to determine the maximum size of the planned procurement, but that the procurement itself is divided into optional phases. We do not disagree with the principle of using historical estimates to determine the maximum size of a proposed procurement or with TVA's plans to acquire additional computers in planned increments. We believe, however, that a \$54 million procurement should be preceded by a well-documented general systems study, that it should address the objectives previously discussed in this report, and that the study should identify the impact that the 87 additional minicomputers will have on the central computer's workload. Without resolving these matters, we believe that questions will remain as to whether TVA's acquisition of computer equipment, even if done in phases, will be based on valid requirements.

TVA also had a number of specific comments regarding information included in the draft report. We considered each comment carefully in preparing our final report and made revisions as appropriate.

RECOMMENDATIONS

X In order to manage its ADP resources more effectively and economically, we recommend that TVA:

- Establish a formal planning process that will provide top-management involvement in the development of an agencywide ADP plan.// This should include establishment of an executive ADP management committee to develop a statement of what information systems management will need over the next 3 to 5 years. As a first action, the committee should (1) assess how well existing and planned systems meet the identified needs, (2) develop an outline of the major systems projects identified for development, and (3) ensure that the plan provides for systems with potential for sharing development and operational costs among more than one office and division.
- Develop agencywide policies for encouraging and ensuring that organizations develop and implement, where appropriate, interdivisional systems.
- Establish agencywide goals and priorities; implement more effective controls over ADP activities by establishing clearly defined policies and procedures for approving and managing systems development projects; and develop and implement an agencywide estimating and budgeting process for ADP systems.
- Develop and enforce procedures for ensuring compliance with GSA's regulations for obtaining delegation of procurement authority for ADP-related services.
- Develop procedures which will allow the Division of Management Systems to validate, on an application-basis, user forecasts for Central Processing Unit requirements.
- Review the existing studies in support of the fiscal year 1980 computer procurement to determine compliance with the intent of Federal Property Management Regulations.
- Review the adequacy of the internal audit coverage of ADP activities and commit, as appropriate, additional resources to this function.

Heads of Federal agencies are required by the Legislative Reorganization Act of 1970--section 236--to prepare a written statement of actions taken on our recommendations. This statement must be submitted to the House Committee on

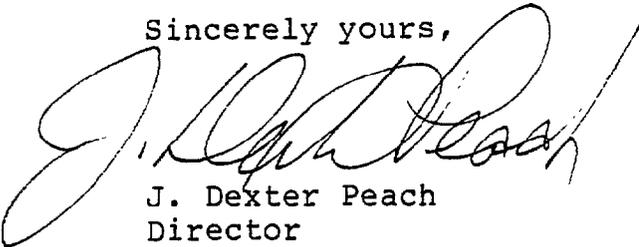
B-115369

Government Operations and the Senate Committee on Governmental Affairs within 60 days after the date of our report. After 60 days, the Act requires this statement be submitted to the House and Senate Committees on Appropriations with the agency's first request for appropriations.

We are sending copies of this report to the Director, Office of Management and Budget; Administrator, General Services Administration; and congressional committees identified above.

We appreciate the courtesies and cooperation extended to our representatives during our review.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. Dexter Peach". The signature is written in dark ink and is positioned above the printed name and title.

J. Dexter Peach
Director

TENNESSEE VALLEY AUTHORITY
KNOXVILLE, TENNESSEE 37902

OFFICE OF THE BOARD OF DIRECTORS

August 3, 1970

Mr. F. Kevin Boland, Associate Director
Energy and Minerals Division
United States General Accounting Office
Washington, DC 20548

Dear Mr. Boland:

We appreciate the opportunity to review and comment on the July 5 draft of your proposed report concerning management and use of automatic data processing resources in TVA. Detailed comments on the text of the report that we believe would clarify the data presented are included in Enclosure I. For convenience, we have provided a redraft of the report (Enclosure II) that includes these suggested modifications.

While we agree in general with the report's observation that more needs to be done to strengthen management and control over TVA's ADP activities, we are disappointed that the report does not acknowledge that the new management at TVA recognized this deficiency and was already taking major steps to improve the situation. One of the most significant steps, the creation of a Division of Management Systems which centralized responsibilities for both agencywide information systems planning and computer resource planning in a single organization, took place during the early stages of your audit. We believe the new division will be able to implement and operate the necessary ADP planning and control systems to adequately manage TVA's data processing resources. We will, however, monitor the division's progress; and if we find, as your report suggests, that the division does not have enough authority to bring about the needed improvements, we are prepared to take further action.

We strongly disagree with your conclusion that TVA's justification for procuring additional ADP equipment is questionable. Annual projections of central processing unit resource requirements are based on figures prepared by the systems development and operations personnel who are directly involved with the systems being estimated. The fact that these projections use historical data to help develop a profile of future demand does not make their validity questionable. By definition, an estimate is the forming of an opinion of approximate size, amount, or number. TVA has done just that with the people that are in the best position to predict such needs. Because we recognize that an estimate is just an informed opinion of future needs, we took this into consideration when structuring our procurement. You will note that our computer resource estimates were used to determine the maximum size of our proposed procurement, but the procurement itself is divided into optional phases. TVA will only acquire the computer power it needs based on the actual demand at the time an option is exercised and is not obligated to execute all options included in the procurement.

We would also like to comment on a specific portion of the report referring to several instances when TVA is said to have contracted for ADP-related services without obtaining from the General Services Administration a delegation of procurement authority (DPA). TVA has always recognized application of the Brooks Act to its procurement of ADP equipment and software. Adequate instructions to personnel working in the ADP area to that effect have previously been issued. Unfortunately, the weaknesses that have been pointed out in the organizational framework may have contributed significantly to any breakdown in communications in this area. We feel confident that the new organization, with coordinating responsibilities and new internal procedures presently being developed by TVA, adequately addresses this specific concern.

We also have reservations that the GSA regulations on obtaining DPA's were intended to apply to any outside service contract involving the use of ADP services however related to the ADP field generally. For example, the \$10.2 million contract for development of the Materials Management System (MAMS) is loosely referred to in your report as a contract for analysts and programmers entered into without appropriate authorization from GSA. MAMS is actually a general term covering efforts over a number of years by TVA to design, develop, and eventually implement a TVA-wide system to handle the many phases of material management. Although analysts and programmers were employed by TVA and by the most recent contractor involved in the effort, the principal purpose of the contract was not the employment or use of programmers and analysts. The contractors assisting in the development of MAMS have been involved in providing high-level advisory assistance to investigate the purposes, jobs, and functions to be incorporated into MAMS. Because of the breadth of these services it was not at all clear that the contracts for this work required GSA authorization. It should be pointed out, on the other hand, that during the process of the development of MAMS when equipment and other items such as ADP time were specifically identified as being necessary or appropriate for the effort, these items and equipment were acquired with appropriate GSA authorization.

Questions concerning our comments or the data we supplied should be directed to Donald W. Cramer, Director, Division of Management Systems. He can be reached at FTS 856-4673.

Sincerely,



S. David Freeman
Chairman

Enclosures

(004260)

Single copies of GAO reports are available free of charge. Requests (except by Members of Congress) for additional quantities should be accompanied by payment of \$1.00 per copy.

Requests for single copies (without charge) should be sent to:

U.S. General Accounting Office
Distribution Section, Room 1518
441 G Street, NW.
Washington, DC 20548

Requests for multiple copies should be sent with checks or money orders to:

U.S. General Accounting Office
Distribution Section
P.O. Box 1020
Washington, DC 20013

Checks or money orders should be made payable to the U.S. General Accounting Office. NOTE: Stamps or Superintendent of Documents coupons will not be accepted.

PLEASE DO NOT SEND CASH

To expedite filling your order, use the report number and date in the lower right corner of the front cover.

GAO reports are now available on microfiche. If such copies will meet your needs, be sure to specify that you want microfiche copies.

AN EQUAL OPPORTUNITY EMPLOYER

UNITED STATES
GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U. S. GENERAL ACCOUNTING OFFICE



THIRD CLASS