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

DIVISION OF FINANCIAL AND
GENERAL MANAGEMENT STUDIES

DECEMBER 11, 1979

B-115369

The Honorable Douglas M. Costle
Administrator, Environmental
Protection Agency 24



111073

Dear Mr. Costle:

Subject: The [Environmental Protection Agency
Acts to Improve Computer-Produced
Reports] (FGMSD-80-11)

This report discusses the need for and usefulness of financial reports produced by three of your agency's automated systems--Financial Management, Grants Information and Control, and Personal Property. Our review was part of a multiagency review on which we plan to issue an overall report to the Congress.

Section 112(b) of the Budget and Accounting Procedures Act of 1950 provides for the Comptroller General to approve all executive agency accounting systems. The design of your agency's accounting system--the Financial Management System--was approved in September 1977. (The designs of the Grants Information and Control System and the Personal Property System do not have to be submitted for the Comptroller General's approval.)

Regional personnel do not obtain all the information the three systems are capable of producing. Further, headquarters use of the grants and property systems is limited because regional offices are either not entering data or are entering erroneous data into these systems.

In the case of the Financial Management System, the standard reports the system is designed to produce do not give regional managers and their staffs financial information in sufficient detail to daily track expenditures, monitor liabilities, and develop sound operating budgets. To compensate, the system includes a special feature which allows regional office personnel to design and produce reports locally, but only a few regions take advantage of that feature.

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Semiannual users' conferences held by headquarters managers have not fostered greater system use by the regions, and headquarters managers have not independently assessed regional offices' use of the system to determine how it can be better used.

In the case of the Grants Information and Control System, many regional section chiefs and project engineers view the system as designed to specifically meet the information needs of headquarters managers. They do not view it as a means of helping them get the information they need to monitor the progress of State and municipal construction projects for pollution control and abatement facilities.

In addition, many regions do not have the personnel trained in using the computer that they need to effectively use the system. To effectively use the system as currently designed, computer-trained staff are needed to design and program needed reports. Because no standard set of reports exists to meet their needs, many regional personnel do not enter needed transaction information into the systems's automated files, and in turn, computer-produced reports are incomplete, inaccurate, untimely, and of marginal value to headquarters staff.

In the case of the Personal Property System, headquarters systems managers have not effectively followed up on known failures of regional personnel to (1) enter financial transaction information into the central computer database and (2) conduct and follow up on physical inventories of personal property.

Overall, the Environmental Protection Agency is not getting adequate return--in terms of needed and useful information--on its investment to design, operate, and use the three automated information systems covered by this review. This investment is not small. For example, the Grants Information and Control System cost \$378,000 to design, and fiscal 1978 operating costs totaled about \$1.4 million. We could not determine the design costs for the Financial Management System, but fiscal 1978 operating costs amounted to about \$588,000.

Enclosure I discusses the results of our review and our recommendations for improving the usefulness of the reports produced by the three systems. We received written comments from your Assistant Administrator for Planning and Management advising us that actions on our recommendations have been initiated. These actions should enable the Environmental Protection Agency to obtain needed and useful information on the three automated information systems.

As you know, Section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget; the Chairmen, House Committee on Government Operations and Senate Committee on Governmental Affairs; and the Secretary of the Treasury.

We wish to express our appreciation for the cooperation we received during this review.

Sincerely yours,

A handwritten signature in black ink, appearing to read "D. L. Scantlebury". The signature is written in a cursive style with a large, sweeping flourish at the end.

D. L. Scantlebury
Director

Enclosures - 2

SUMMARY OF GAO FINDINGS AND
RECOMMENDATIONS TO IMPROVE
FINANCIAL REPORTING

The Environmental Protection Agency has three systems to help managers control appropriated funds, monitor States' and localities' use of grant funds, and control the Agency's \$137-million investment in personal property.

- The Financial Management System was designed to record, control, and report allotments, commitments, obligations, and expenditures of appropriated funds.

- The Grants Information and Control System was designed to record and report progress on engineering and construction work on State and municipal projects paid for with Federal money. The system was initially set up as a central database which headquarters personnel could use to manage grant programs administered by headquarters. In 1973 regional offices were given access to this database, and in 1976 the database was expanded to include construction work milestones which regional office personnel need to track construction projects. In 1977 one State began to directly enter information into and obtain reports from this database. The Environmental Protection Agency is planning to give additional States and the U.S. Army Corps of Engineers access to the system.

- The Personal Property System was designed to provide central, agencywide records and control over property items worth more than \$200 each. The November 1978 automated inventory listed 55,000 items valued at more than \$137 million.

These systems are designed to serve the information needs of all agency managers by recording all information in a central file and by letting each manager obtain the necessary information from it. For example, a regional manager can ask the computer for information that pertains only to his or her region's operations, while a headquarters manager can access the computer for agencywide financial summaries of agency operations or programs.

Each system is designed to

- have each user put his or her own transaction information into the database;

- put information into and pull reports from the database via remote computer terminals;
- include a limited number of standard report formats;
and
- allow users, by writing simple computer programs, to obtain reports tailored to their individual needs and preferences.

Because the Environmental Protection Agency's information systems are timeshared systems, it is impractical to establish the cost of a single report requested by an individual user. However, overall costs to design and operate these systems are not small. For example, designing and building the Grants Information and Control System cost about \$378,000, and fiscal 1978 operating costs totaled about \$1.4 million. We could not determine the design cost for the Financial Management System, but in fiscal 1978 the system cost about \$588,000 to run.

SCOPE OF REVIEW

We concentrated on evaluating regional office personnel's use of the reports produced by the Financial Management, Grants Information and Control, and Personal Property Systems. Most of our work was done in region I (Boston). The results of our work there was buttressed with the responses to questionnaires we sent all other Environmental Protection Agency regional offices and information from telephone interviews with key regional officials. We interviewed systems designers and managers at the headquarters Financial Management, Facilities and Support Services, Program Reporting, and Grants Administration divisions to get the headquarters perspective on our findings in the regional offices.

INFORMATION SYSTEMS ARE NOT EFFECTIVELY USED

The three Environmental Protection Agency automated information systems we reviewed are not used to their full potential to meet the information requirements of management and operating personnel. Information needed from the grants and property systems is not always accurate. In addition, some personnel do not have an adequate working knowledge of the computer to enable them to fully utilize these reporting systems.

These problems exist because the benefits of the automated system are not readily apparent to regional managers

and operating personnel. Also, headquarters system designers and managers have not followed up on the failure of regional personnel to enter financial information into computer master files and to correct known report weaknesses promptly. As a result, regional personnel have not adequately emphasized that current, complete, and accurate information must be entered into the database.

Following are details on our review of the three information systems.

Financial Management System

The Financial Management System is designed to produce both standard reports and special, user-designed reports. The system includes a special feature called the software package for unique reports which allows both headquarters and regional personnel to design their own reports and obtain the information from the central database. This feature is intended to help users get the financial information and analyses not provided for in the system's standard reports.

At present, 27 standard reports are designed for use by regional offices, and the regions can select those reports they want to receive. If a regional office does not want a standard report, it simply does not have the report printed on its computer terminal. Of the 27 standard reports, only 9 were used by all 10 regions. Those reports showed basic accounting information, such as the monthly general ledger trial balance.

On an individual report basis, 11 standard reports were used by about half the regions, and 7, which summarized basic accounting information (such as the monthly summary of transactions by obligation) were used by 3 or fewer regions. The main reason region I officials gave for not using these standard reports was the lack of detailed information--the reports are too highly summarized.

The software package feature of the Financial Management System allows system users to obtain the financial information not provided in sufficient detail by the standard reports by designing and producing their own reports from the system's central database. Our questionnaire survey showed that three of the ten regions use locally designed and produced reports extensively while the seven other regions, by comparison, use these reports minimally.

<u>Region</u>	<u>Standard reports used</u>	<u>Software package for unique reports used</u>	<u>Total</u>
I (Boston)	18	10	28
II (New York)	17	29	46
III (Philadelphia)	18	3	21
IV (Atlanta)	17	4	21
V (Chicago)	19	29	48
VI (Dallas)	21	4	25
VII (Kansas City)	23	4	27
VIII (Denver)	22	7	29
IX (San Francisco)	16	6	22
X (Seattle)	17	4	21

The Chicago regional office is a leading user of the feature. The office produces 29 locally designed reports and uses this feature to produce reports intended to bring financial information into the managerial decisionmaking process. For example, Chicago regional office personnel receive the following special reports:

- Zero-based budgeting status report by appropriation/responsibility, center/decision unit/program element.
- Reconciliation of current month's payments under construction grants with information from the Grants Information and Control System.
- Operating results report for budget analysts' use.

In contrast, Dallas regional office personnel produce only 4 reports using the software package for unique reports, and these reports are essentially listings of basic financial information in the central computer database rather than analyses of such information. For example, the Dallas region produces status of funds reports and a summarized document history report.

The wide range of use of the Software Package for Unique Reports feature in the automated Financial Management System

by regional offices in terms of both the number of reports produced and the kinds of reports produced indicates that the Financial Management System's potential to produce needed financial information is not fully utilized by the regional offices.

Two of the regions that make great use of the Financial Management System said that the standard reports and specially designed reports could be improved to better satisfy the regions' information needs. Officials in these two regions said the Financial Management System cannot produce analyses of historical financial information, cost projections, or specialized cost breakdowns. That kind of information would be highly useful in tracking specific costs and liabilities and producing future operating budgets.

The software package cannot produce the historical financial analyses or break down specific costs because that information is not recorded on the central database and the package cannot produce cost projections because it is not programmed to do so.

The headquarters financial management division holds semi-annual users' conferences to discuss how effectively the automated Financial Management System meets users' information needs and how the system can be improved. The division plans to improve the system, but thus far, its plans are in the conceptual stage and no timetable has been set for introduction of the improvements.

Unfortunately, these semiannual conferences have not worked to make most regional offices aware of the financial information available from the system through the use of the software package for unique reports. The division has also not taken the opportunity at the conferences to foster greater system use by most regional offices so they may obtain all the information the system can potentially deliver.

Grants Information and Control System

The grants system design does not provide for a set of standard reports. Instead, the system includes special computer programs to allow users to design and produce their own reports from the central database. Headquarters' users have designed a set of standard grants reports for headquarters use, but the reports are also available to regions as guides in developing their own reports.

The grants system design requires that regional offices enter transaction information into the central database via computer terminals. However, some regional personnel do not post accurate transaction information, and as a result, the project status reports that headquarters managers receive from the system are inaccurate. Officials in 5 of the Environmental Protection Agency's 10 regions categorized the quality of the information in the grants database as marginal to poor.

Since the regions make little use of the grants system, they have little incentive to post accurate and complete information to the database. This is in contrast to their updating of transaction information in the Financial Management System's database which they do promptly and accurately. But, the regions make greater use of that system and are therefore concerned with keeping the database up-to-date.

If regional offices do not post information to the grants central database, then headquarters personnel (1) will monitor regional office management of grants, (2) determine the status of specific construction projects, and (3) produce and publish monthly and quarterly reports for the public based on incomplete and inaccurate information. The Environmental Protection Agency has recognized that the database is incomplete, and awarded a contract in October 1978 to verify the completeness and accuracy of information in the grants database.

Most regions do not routinely use information from the grants system to help them monitor State and local use of Federal grant funds. Officials in 7 of the agency's 10 regional offices acknowledged that the grants system could be used more effectively.

The main reason those seven regional offices make only minimal use of the grants system is the lack of computer-trained personnel to produce recurring reports from the system. For example, one region does not have a systems manager to help project engineers and other regional personnel use the grants system, while in four other regions systems managers work only part-time with the system. In addition, two regions did not have computer specialists to design reports and write the necessary computer programs to produce them from information in the central database.

Unless the basic design of the grants system is changed to provide for a set of standard reports, regional offices will need computer-trained personnel to effectively use the system.

Shortages of computer-trained personnel and grant system coordinators in the regional offices delay not only designing the needed recurring reports but also writing the computer programs to produce the reports from the central database. For example, in Boston it takes from 1 to 5 months to design and produce a new report, time which deters regional managers and project engineers from fully using the system and which leads them to believe that the grants system was designed to meet only headquarters information needs. Regional managers feel that their information needs for monitoring State and local construction projects are not met, and consequently, many section chiefs and project engineers do not use the grants system to get construction status and progress information. As a result, the grants system is not being used for what it was designed--providing day-to-day information on State and municipal use of grant funds and on the progress of construction projects.

The degree to which the regional offices underuse the grants system is illustrated by the number of recurring reports produced.

<u>Region</u>	<u>Recurring reports produced</u>	<u>Total reports produced</u> (note a)	<u>Recurring reports to total reports</u> (percent)
I (Boston)	33	83	38
II (New York)	30	65	50
III (Philadelphia)	30	50	60
IV (Atlanta)	18	150	12
V (Chicago)	62	80	78
VI (Dallas)	30	75	40
VII (Kansas City)	37	(b)	(b)
VIII (Denver)	15	46	33
IX (San Francisco)	50	100	50
X (Seattle)	25	40	63
Average			49

a/Reports produced to satisfy one-time requests for information.

b/Number is unknown.

The percentage of recurring reports produced in each region from their libraries of available reports ranged from about 12 to 80 percent, averaging 49 percent. For example, the Boston region produced only 33 of its library's 83 reports on a recurring basis. Boston recognized this discrepancy, and in October 1978, after reviewing its grants reports library, eliminated 41 of its 83 reports. In contrast, about 80 percent of the reports in Chicago's library are used on a recurring basis, thus highlighting the potential of the system to meet regional information needs.

During our review, headquarters officials responsible for managing the system acknowledged that (1) serious problems exist with regional acceptance and use of the system and (2) regional offices need to use the information available in the grants central database to monitor State and municipal use of grant funds. Corrective actions taken by headquarters have included:

- Visiting regional offices to assess system use and need for additional grants information.
- Holding users conferences to review information in the central database and to identify information that should be dropped from or added to it.
- Publishing a list of selected grants reports developed and produced by the regions.
- Encouraging regions to hire needed computer-trained personnel.
- Using automated methods to measure the completeness and timeliness of transaction information regional personnel post to the central database.

These corrective actions, however, are inadequate because regional managers and operating personnel (1) continue to ignore their responsibilities to enter transaction information into the grants system's central database and (2) do not use the system to get information for monitoring State and municipal construction projects.

Personal Property System

The Personal Property System is designed to provide agencywide records and control for any property item worth

more than \$200. 1/ Field property officers are to prepare and send computer input data sheets to the regional offices when property is acquired or disposed of, and regional property officers are to post that information to the central property database. In addition, field property officers must conduct annual physical inventories to crosscheck property reports and identify idle and underused property.

Personnel at region I (Boston), which includes the New England Research Laboratory, do not enter all information on property acquisitions and dispositions into the system and do not properly follow up on annual physical inventories. (The New England Research Laboratory had custody of 73 percent of accountable personal property in the region--about \$663,000 out of more than \$909,000.) For instance:

--Since 1975, only 13 of 101 property acquisitions and dispositions with item values of \$500 or more had been posted to the central records, and no entries were made in 1977 and 1978. As a result, 88 items worth a total of more than \$150,000 were not posted to the property control records. In mid-1977, the laboratory property officer attempted to alleviate the situation by setting up a manual card file for accountable equipment, but as yet, none of those 88 items has been recorded in file. Therefore, the region's accountable property is understated by \$150,000.

--The last inventory taken after April 1978, disclosed 20 items of equipment not shown on the April 1978 automated property report. However, none of the 20 items was listed on the October 1978 automated property report and therefore neither the central property records nor the regional records are accurate.

Headquarters officials said that region I's property control problems are not unique. Similar problems occur in other regions. For example:

--Not all property custodians have conducted required annual physical inventories.

1/The unit property value for items subject to accountability was increased from \$200 to \$500 in March 1978. Property custodians were given the option to retain on the automated personal property system existing items with unit values between \$200 and \$500.

--Many property custodians simply certify that they have property on hand that is listed on property reports.

--Not all equipment acquisitions and dispositions have been posted to the central database.

Headquarters property division officials have encouraged regional personnel to enter property transactions into the central computer database promptly and completely and to conduct annual physical inventories. Their efforts have included

--supervisory visits to all regional offices to train regional personnel to use the system and

--telephone calls and/or messages printed on regional computer terminals to remind property officers to update the central database and to conduct annual physical inventories.

These actions are inadequate, however, because regional managers and property personnel still do not enter all acquisitions and dispositions nor do they conduct and properly follow up on physical inventory findings.

Because headquarters officials have been unable to get regional and field installation personnel to comply with agency property regulations, the Environmental Protection Agency has lost central control over its \$137-million investment in personal property.

CONCLUSIONS

The three Environmental Protection Agency automated information systems we reviewed are not used to produce the reports and analyses for which they are designed because headquarters managers have not (1) routinely and systematically monitored and evaluated regional office use of the systems nor (2) taken prompt action to correct system design weaknesses and regional office failures to enter transactions into central computer files. As a result, the Environmental Protection Agency is not getting an adequate return--in terms of needed and useful information--on its investment to design and use its automated information systems.

RECOMMENDATIONS

We recommend that you, as Administrator of the Environmental Protection Agency, direct headquarters managers to

- Periodically evaluate the operations of automated information systems and the need for and usefulness of the reports produced. The initial evaluation should include a complete review of all locally designed reports to identify the most useful reports. Then, if appropriate, headquarters should make those reports standard so that the type of information the systems are designed to and capable of producing can be made available to as many regions as possible.
- Assure that regional personnel receive sufficient training on the best use of all three automated information systems.

We also recommend that you specifically direct headquarters managers of the Grants Information and Control System to review regional use of the grants system to identify ways to make the system more responsive to regional users' needs. Also, we recommend that you direct regional managers to (1) hold responsible officials accountable for accurately posting transaction information to the central database and (2) take the required physical inventories of property.

AGENCY ACTIONS

The Environmental Protection Agency has initiated the following actions on our recommendations.

- A study of manager's reporting needs under the automated Financial Management System was started late in 1978 under a contract with an accounting and management consulting firm.
- Headquarters has taken two actions to improve the usefulness of reports produced by the automated Grants Information and Control System:
 - (1) It has directed regional managers to keep the database current and to assure the quality of the data. Headquarters will continue to audit and verify the information in the grants database.
 - (2) It has initiated a pilot program to improve regional grants management. The program's current objective is to have Grants Information and

Control System functions located in the regions so that specific responsibility and accountability for performance can be assigned.

--Two actions have been promised to strengthen centralized control over personal property.

- (1) At the upcoming meeting of regional property managers in November 1979, headquarters managers will present the findings of our review and get a commitment from the regions to correct reported deficiencies. They will also explore approaches to making the system more useful and easier to use. Finally, headquarters will schedule visits to regional offices throughout fiscal 1980 to assess problems and provide on-site assistance.
- (2) A headquarters property specialist has already visited region I to provide guidance in correcting the severe deficiencies we found in that region. Headquarters has also reviewed region I's input to the September 1979 update to the system. Headquarters will continue to work closely with all regions, but especially region I, to correct the system's deficiencies as well as to improve the system itself.

AGENCY COMMENTS

Although agreeing to take action on our recommendations on the Grants Information and Control System, in a September 21, 1979, letter, the Assistant Administrator for Planning and Management said that our report does not identify specific deficiencies supporting our conclusion that the grants system does not meet the information needs of either headquarters or the regions. He also contended that the Environmental Protection Agency has issued thousands of reports using the system and, on balance, the system has been both efficient and accurate. (See encl. II.)

We disagree. As we pointed out, the grants system does not fully meet the information needs of headquarters managers, and most regions make only minimal use of the system. (See pp. 8 to 12.) Specifically, the report points out that:

--The completeness and accuracy of the information in the grants database ranges from marginal to poor and that the headquarters' systems managers hired an outside contractor to verify the accuracy and completeness of information in the database.

- Only three of the ten regions made extensive use of the grants system.
- Most regions make only minimal use of the grants system because shortages of computer-trained personnel greatly delay them from getting reports designed and produced.
- Headquarters officials acknowledged that (1) serious problems exist with regional acceptance and use of the system and (2) regional offices need to use the information available in the central grants database to get the information needed to monitor State and municipal construction projects.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 21 1979

OFFICE OF
PLANNING AND MANAGEMENT

Honorable Henry Eschwege
Director, Community & Economic
Development Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

The Environmental Protection Agency (EPA) has reviewed the General Accounting Office (GAO) revised draft study of financial reports produced by three EPA systems - Automated Integrated Financial Management, Grants Information and Control, and Personal Property.

In addition to our oral comments on an earlier draft of this study furnished to GAO at a meeting July 26, 1979, I would like to make these additional comments.

Automated Integrated Financial Management Systems

GAO recommends that EPA make periodic evaluations of the financial management systems. This recommendation is being implemented.

We have gone to great length to assure that our systems are kept up-to-date and meet emerging management requirements.

The current EPA financial system was developed in 1973-1974 based on a 1972 Booz-Allen and Hamilton Survey of Agency managers reporting needs. The system was evaluated again in 1974 by a task force headed by the Management Division Director, Region II, resulting in modifications to the reporting structure. A new study of management requirements began in late 1978 under a contract with Arthur Young and Company.

We have responded to pressure for new and more sophisticated information. With the advent of Zero Base Budgeting (ZBB) in 1978, the demands for financial information expanded. Managers were no longer willing to wait for end of month reports. We found that the new emphasis on analytical support for decision making just could not be satisfied through a system limited to month-end standardized reporting. As a result, Software Package for Unique Reports (SPUR) was developed to allow financial management offices and eventually program managers to obtain the information they needed, when they needed it, from the financial management system data base. Training for this software was provided on-site to each EPA Regional Office. The process is easily learned by the layman and does not require ADP training.

We have found that this improvement has not increased our cost of operations. Selective use of SPUR has been accompanied by reduced use of the large end of month reporting package printouts. Availability of a report generator package has provided Regional Financial Management Officers the ability to tailor their reports to local management demands, without dependence on the limited Regional ADP staffs.

Grants Information and Control System

The report states a general conclusion that the Grants Information Control System (GICS) does not meet the information needs of either Headquarters or the regions. The report does not identify specific deficiencies supporting this conclusion which makes it difficult for us to respond. We have issued thousands of reports using this system and, on balance, the system has been both efficient and accurate.

We have developed an extensive package of standard computer generated reports specifically designed for use of regional program management. In addition, Headquarters has directed regional managers to keep the data base current and to assure the quality of the data. We will continue our verification and audit programs.

In addition, we have initiated a pilot program to improve regional grants management. Our current objective is to have GICS functions organizationally located so as to assign specific responsibility and accountability for performance. While these efforts take time, we believe it will significantly strengthen financial reporting in this area.

Personal Property Systems

We plan to take several steps to improve property management in the regions. First, at the upcoming meeting in November, we will present the findings of the GAO study and get a commitment from the regions to correct the deficiencies. We will also explore approaches to making the system more useful and easier to use. Finally, we will schedule visits to regional offices throughout FY 1980 to assess problems and provide on-site assistance.

In Region I, we have already sent one of our property management specialists to provide guidance in correcting the severe deficiencies GAO found in that region. We have also reviewed their input to this month's update to the system. Region I has taken action on about 100 line items. While we are not satisfied that all the deficiencies are corrected by this input, it is evidence of progress. We will continue to work closely with the regions, especially Region I, to correct all the deficiencies as well as to improve the system.

In addition to the above, EPA has furnished GAO two pages of specific comments on the revised draft report.

If you require any additional information, we will be pleased to furnish it.

Sincerely yours,

C. William Center

for William Drayton, Jr.
Assistant Administrator for
Planning and Management