

DOCUMENT RESUME

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[Civil Service Commission Should Correct Weaknesses in Its Automatic Data Processing Policies and Practices]. FPCD-78-94; B-115369. November 20, 1978. 5 pp.

Report to Alan K. Campbell, Chairman, Civil Service Commission; by H. L. Krieger, Director, Federal Personnel and Compensation Div.

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Contact: Federal Personnel and Compensation Div.

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The Civil Service Commission (CSC) is becoming increasingly reliant on automatic data processing (ADP) support to carry out its missions. Weaknesses in CSC's ADP management were noted in policy matters, program documentation, security planning, and contingency planning. The CSC or its successor should: establish a comprehensive, uniform ADP policy; expand the current program documentation standard to include all ADP production programs; and strengthen ADP security planning. (HTW)



UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

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FEDERAL PERSONNEL AND
COMPENSATION DIVISION

B-115369

November 20, 1978

The Honorable Alan K. Campbell
Chairman, United States
Civil Service Commission

Dear Dr. Campbell:

During our recent review of Civil Service Commission revolving fund activities, we made a limited examination of the automatic data processing (ADP) system which generates revolving fund reports. To improve its ADP management, we believe the Commission or its successor, the Office of Personnel Management, should:

- Establish a comprehensive, uniform ADP policy.
- Expand the current program documentation standard to include all ADP production programs, those programs used on a recurring basis.
- Strengthen ADP security planning.

Although these matters did not affect our report to the Congress on the revolving fund, they are important and we are taking this opportunity to bring them to your attention.

ADP POLICY

In a March 3, 1978, memorandum establishing an ADP Steering Committee, the Commission's Deputy Executive Director said:

"The Commission is becoming increasingly reliant upon ADP support. The successful performance of our basic missions now depends in large measure on the effectiveness of ADP support."

The committee's charter noted that it would deal with policy matters, including long-range planning, new applications, priority ranking of efforts, and financing.

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Minutes of the committee's first meeting showed that a major concern is "how ADP affects the Commission in its totality." Nevertheless, it has not established a uniform policy for applying ADP systems to the agency's mission. Such a policy should cover criteria and means for (1) evaluating ADP related activities, (2) establishing priorities for using limited ADP resources in support of missions, and (3) identifying instances in which it is appropriate to use computerized approaches to assist management.

Recommendation

Because the Commission relies heavily on ADP support to carry out its missions and because this trend is increasing, we recommend that you, or your successor, the Director, Office of Personnel Management, develop and issue a comprehensive, uniform ADP policy. Developing and implementing such a policy would enable the Commission to better perform its missions and ensure that its programs are more efficiently administered. We also recommend that you require periodic reports on (1) the status of ADP policy matters, (2) problems encountered in implementing the policy and proposed solutions, and (3) revisions to the policy.

PROGRAM DOCUMENTATION

Program documentation describes, among other things, how a computer program performs tasks. Specifically, it contains information on the design, development, testing, and maintenance of and changes to computer applications.

On September 1, 1977, the Commission issued an ADP documentation standard entitled "Program Maintenance Manual" which requires documenting computer program design and testing. However, the manual said that:

"Programs in operation as of the release date of this publication are not required to adhere to the standards and procedures outlined in this document, however, time and resources permitting, every possible effort should be made to document systems that have poor, outdated or non-existent documentation." (underscoring added)

Comprehensive and current documentation is normally the only visible means of communicating both the essential elements of the computer system and the logic followed by

a computer program. We recognize that preparing such documentation is a major effort, but good documentation generally prevents waste and unnecessary costs.

Because the standard does not require all production programs to be documented, Commission programmers and systems analysts may not be able to (1) review and revise computer programs quickly and effectively, (2) recreate critical programs after a natural or manmade disaster, or (3) audit and verify computer operations.

Recommendation

We recommend that you, or your successor, revise the program maintenance manual to require proper documentation of all ADP production programs, and that you review programs and assign priorities for documentation. We also recommend that milestones be established to insure that (1) the documentation effort does not hamper other Commission operations, (2) the effort's progress can be monitored, and (3) the effort is completed in a reasonable amount of time.

SECURITY PLANNING

Security over data bases and equipment is essential to insure continued effective ADP operations. The Commission needs to strengthen its ADP security policies and practices by (1) making a management official at each computer site responsible for ADP security, (2) using risk management techniques when determining the protection needed, and (3) expediting a contingency plan for its ADP service center in Macon, Georgia.

Risk analysis

The Deputy Executive Director has recognized the Commission's increasing reliance on effective ADP support. Security measures to safeguard computer hardware, software, personnel, data, and facilities are essential for effective ADP operations. Federal Information Processing Standards Publication 31 provides guidelines to Federal managers for planning and evaluating computer security. It recommends developing an ADP security plan based on a risk analysis which identifies major problem areas.

The Commission is preparing a data security manual and has reserved space in the manual to include the results

of a risk analysis which has not yet been made. Until such an analysis is made, the Commission cannot be certain its security manual addresses the major risks to the system.

Contingency planning

An important part of any ADP security policy is a set of procedures called a contingency plan. Federal Information Processing Standards Publication 31 identifies three types of contingency plans for an ADP facility:

- Procedures for responding to emergencies such as fire or bomb threats.
- Plans for insuring that critical tasks can be processed after an emergency.
- Plans for restoring the ADP facility after an emergency.

The Commission has a contingency operations plan for its Washington, D.C., computer center, but a contingency plan for the Macon, Georgia, service center is still being drafted even though the service center has been operational since calendar year 1976. Without a clear, concise, tested contingency plan, the service center's data processing operations could be severely crippled by a natural or man-made disaster.

Recommendation

We recommend that you, or your successor, assign responsibility to a management official for making a risk analysis of the Commission's ADP system to identify major security weaknesses. Once these weaknesses have been identified, they can be used as a guide in developing the data security plan.

We also recommend that you expedite completing the Macon service center contingency plan and provide for revising it when appropriate, based on the results of annual tests.

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At the time we completed our study, the Commission's internal auditors, the Office of Management Analysis and Audits, had done only limited work in examining these

aspects of the ADP system. However, the Office was developing plans for more comprehensive reviews in this area. We discussed our findings with Commission officials who agreed that corrective measures are needed. 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 action 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 would appreciate being advised of any actions you take or plan to take with regard to the matters discussed in this letter. Should you wish to discuss these matters in more detail, we would be pleased to meet with you or members of your staff. We appreciate the cooperation given our representatives during this examination.

Sincerely yours,



H. L. Krieger
Director