March 1987

INTERNAL CONTROLS

Agriculture Finance Center Actions to Improve Controls in Selected Areas

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GAO/AFMD-87-32FS

GAO

United States
General Accounting Office
Washington, D.C. 20548

Accounting and Financial
Management Division

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March 20, 1987

The Honorable Barbara A. Mikulski
The Honorable Paul S. Sarbanes
United States Senate

The Honorable Gary L. Ackerman
The Honorable Steny Hoyer
House of Representatives

Your October 28, 1986, letter requested that we examine
several issues regarding transfer of the Department of
Commerce's Census Bureau payroll system to the Department
of Agriculture's National Finance Center (NFC). As agreed
with your staffs, we are providing you a fact sheet on
NFC's progress in addressing issues involving its payroll
operation and general automated data processing controls
that we raised in two 1985 reports, Internal Control
Improvements in the Department of Agriculture's Centralized
Payroll System (GAO/AFMD-85-39, May 22, 1985) and
Improvements Needed in General Automated Data Processing
Controls at the National Finance Center (GAO/AFMD-85-38,
July 12, 1985).

To determine NFC's progress, we interviewed relevant NFC
officials in New Orleans and reviewed pertinent
documentation. We did not examine NFC's processing
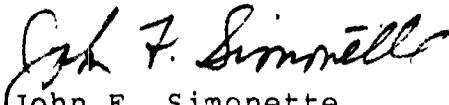operations in detail, nor did we perform a detailed systems
analysis.

While we did not make formal recommendations in the May
1985 report, we did outline problems that NFC was
attempting to resolve, as well as several which NFC did not
agree required attention. (These latter issues were
intended to ensure that NFC restricted access to automated
data processing (ADP) programs and data and that it had
controls appropriate to ensure that payroll processing
results were correct.) Action has been taken on most
issues in this report. (See appendix I for details.)

In the July 1985 report we made a recommendation calling
for the NFC director to report quarterly to the Agriculture
Assistant Secretary for Administration on the status of

efforts to resolve the following: (1) providing adequate
disaster planning, (2) developing appropriate program
documentation, (3) implementing an independent
certification function, and (4) limiting access to ADP
programs and data. Reports of this nature have been made
to the Director of the Office of Finance and Management.
As with the May 1985 report, NFC has taken some action on
these items. (See appendix II for details.)

As agreed with your office, we did not obtain agency
comments on a draft of this document. Unless you publicly
announce the contents of this report earlier, we will not
distribute it until 30 days from its date. At that time we
will send copies of the report to the Secretary of
Agriculture, the Secretary of Commerce, and other
interested parties. We will also make copies available to
others on request. If you have any questions regarding the
contents of this document, please call me on
(202) 275-9454.

John F. Simonette
Associate Director

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ABBREVIATIONS

ADP   automated data processing

FIPS   Federal Information Processing Standards

FPMR   Federal Personnel Management Regulations

NFC   National Finance Center

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INTERNAL CONTROL IMPROVEMENTS
IN THE DEPARTMENT OF AGRICULTURE'S
CENTRALIZED PAYROLL SYSTEM:
STATUS OF CORRECTIVE ACTIONS

Issue 1:

We stated in our report that

"...during processing, any identifiable payroll record
creating a processing problem was placed in a 'drop file'
so that the programmer could research the record and
reenter corrected data. From an internal control
viewpoint, we consider this a weak procedure because it
allows one person to control too many aspects of the
basic transaction. NFC changed the procedure to provide
for the drop file to be sent to the accounting operation
section, which is a separate unit away from the
programmer, for research. However, to control this
process properly, NFC should create a suspense listing of
all files which are creating problems and are placed in
the drop file. In this way, NFC can establish that the
system is missing a file and can document correction of
the item."

We discussed this problem with an NFC official and were told
that any particular payroll record which creates a processing
problem is included on a suspense listing of unpaid items which is
used by accounting operation division personnel in making
corrections.

Issue 2:

The second issue raised in our report was that

"...control over programmer access and modification to
computer programs and computer and payroll files was
inadequate. NFC has allowed programmers access to all
parts of the system with little oversight of their
activities. NFC personnel stated they have instituted
procedures to eliminate unneeded access and have limited
the number of programmers with complete access to five.
However, we believe programmers should not have access to
all parts of a system because such a procedure increases
the possibility that fraud can occur. NFC has instituted
a program certification function, and NFC told us that
over 80 percent of the programs comprising the payroll
system have now been reviewed to ensure no unauthorized
program changes have been made. Although this is a
positive step, it does not preclude future unauthorized
changes."

We based our comment on problems we saw in the way NFC
operated a particular program which edits and validates time and

attendance reports. At the time of our review, NFC ran the program from a software library which had no access controls rather than from the production library which had access controls. During our follow-up, NFC told us that it changed this practice so that the program is run from the production library.

Concerning the number of programmers with access, we were told that three programmers at NFC still have read and write access (i.e., the ability to change) to the payroll/personnel programs. These programmers support maintenance of the production library.

Issue 3:

As stated in our report

"...internal control over record counts (control data files) during computer processing is inadequate. A control data file is an internal control technique that sums the records processed and then compares the sum against the records input to be processed. If the two numbers disagree, processing should stop and the reason for the disagreement should be determined. If this is not done, it could result in processing incorrect data during payroll processing, without NFC being aware that the error had occurred. We have discussed this point several times with NFC officials but have been unable to resolve this issue. The officials said they have changed their processing steps to halt the program if the record counts are noted to be out of balance in all parts of the process except payroll computation. We believe that NFC should have the computer halt operation every time the out-of-balance condition occurs. Otherwise, no assurance exits that the payroll computations are correct."

During our follow-up, an NFC official told us that they plan no further action because

-- this is the only portion of the payroll program where processing continues if the control data file is out of balance and

-- the suspense listing of records described earlier identifies the records which created the out-of-balance condition.

IMPROVEMENTS NEEDED IN GENERAL AUTOMATED DATA PROCESSING CONTROLS AT THE NATIONAL FINANCE CENTER: STATUS OF CORRECTIVE ACTIONS

Issue 1:

In this report, we stated that the NFC should develop and implement

"...contingency plans consistent with OMB Circular A-71[1] and FPMR [Federal Personnel Management Regulations] 101-35.3 requirements and FIPS [Federal Information Processing Standards] guidelines to ensure prompt recovery and restoration of NFC operations in case of a disaster or other unexpected events."

NFC has since prepared a disaster recovery plan. The plan addresses response procedures, recovery and rapid restoration, and plan testing but does not identify a backup processing facility.

Issue 2:

We stated in our report that NFC should develop and implement

"...program documentation standards and procedures consistent with FIPS guidelines."

NFC does not agree with our position on this issue and continues to believe that its "COBOL Documentation Standard" meets all FIPS guidelines. Thus, it has not changed its procedures. However,

-- NFC drafted a new documentation standard for program maintenance in August 1985. An NFC official told us that this standard is not used, and our limited review of files for a system certified after August 1985 confirms this statement.

-- NFC issued a security requirements standard in July 1986 which requires that application software be reviewed and that security concerns be satisfactorily identified and resolved before the software is certified. A security requirements questionnaire that asks the user to identify whether the application contains sensitive privacy data is part of the required documentation.

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[1]This circular has since been superceded by OMB Circular A-130.

Issue 3:

In response to our work in system certification, we reported
that the NFC should develop and implement

"...a system certification schedule for all NFC systems,
consistent with OMB Circular A-71, which would include
review of the adequacy of program documentation."

NFC has established a schedule for conducting certifications,
and some certifications have been completed. Our examination of
the certification review file for a recently completed part of the
system indicated that the system documentation was reviewed as part
of the certification process.

Issue 4:

In our report, we said that NFC should also develop and
implement

"...independent testing standards and procedures for both
program changes and new programs."

NFC drafted an application software testing standard in April
1985. Our review of the draft indicated that it addresses new
programs and changes to existing programs. However, this standard
has not been implemented because it has not been approved by the
NFC director.

To determine whether the draft standard was used, we reviewed
the testing documentation prepared for the recently certified
portion of the payroll accounting system. No notations were made
that testing was performed according to the draft standard.

Issue 5:

Finally, we stated that NFC should develop and implement

"...procedures that would allow programmers access to
production programs only when circumstances warrant and
on a controlled basis."

During our follow-up, an NFC official told us that programmer
access to programs has been restricted considerably and that
program access has generally been restricted to the branch level.
We understand that there are a few exceptions involving people
transferred to a different division who temporarily retain some
work responsibilities for the prior division's programs.

We were told that NFC's "Top Secret" software package is used
to control programmers' access to programs but that this package is

incapable of restricting access down to the individual program
level--the level which we consider to be desirable. We performed
no tests to confirm these statements.

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