



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

Accounting and Information
Management Division

B-262055

October 11, 1995

Ms. Darlene Berthod
National Director of Personnel
Internal Revenue Service
Department of the Treasury

Dear Ms. Berthod:

Your letter to the Comptroller General has been forwarded to our division for response. You asked for interpretations to or waivers from certain time and attendance (T&A) requirements in chapter 3, Title 6, "Pay, Leave, and Allowances," of GAO's Policy and Procedures Manual for Guidance of Federal Agencies. Specifically, you asked if (1) a record should be made and retained of clock times of hours worked, (2) a supervisor must approve each employee's T&A data twice, (3) employees can maintain their own T&A records, and (4) employees can retain documentation supporting leave.

As described in your letter, the Internal Revenue Service (IRS) is modifying its T&A system in response to both the National Performance Review initiatives to streamline administrative operations and reduce federal costs and the current trend to realign work and downsize. This modification, when implemented, will result in a "paperless" T&A system. We support initiatives to create a government that works better and costs less. At the same time, we believe that agencies must protect the government's interest.

To more fully understand your request, we contacted your staff and discussed the proposal in more detail. In our fiscal year 1994 financial audit of IRS, we reviewed internal controls over the current payroll process and did not report

any material weaknesses.¹ However, we did not test your proposed system, and consequently, our response only addresses the proposal conceptually and does not address whether your present system can accommodate the proposal.

A discussion of the four questions you raised follows. Also, since your new T&A system, when fully implemented, will be automated, we address the need to ensure data integrity when using automated signatures. Where we identified internal control concerns, we offer certain control procedures to alleviate the concerns. Based on our understanding of your proposal, we have no objection to its implementation provided that the controls we suggest are effectively implemented.

RECORDING CLOCK TIMES

Your current T&A system requires recording time of arrival and departure so that timekeepers can properly record additional entitlements such as night differential or Sunday premium. In lieu of recording arrival and departure times, you propose to use a "time code" which will be entered into an automated system by employees at the end of the pay period or when variances from their pre-established work schedules occur. The time codes are automated designated codes for regular or premium hours worked or leave taken. The codes also identify the type of premium hours; type of leave; and cost accounting information, such as type of work, function to which the work relates, program, and organizational unit. One of the primary edits built into the system will be an automatic match of time codes to an employees "work profile," which is a file identifying only those codes each employee is authorized to charge. The system will automatically reject charges to unauthorized codes.

Under the system you propose, an employee will be required to have premium time and leave approved by their supervisor in advance, if practical. At the end of the pay period, T&A data for each employee, including time codes and leave information, can be reviewed and noted by supervisor. Also, supervisors will be required to closely monitor their employees' work time and to use other techniques, such as comparing work output to time spent to provide a basis for T&A approval.

¹Examination of IRS' Fiscal Year 1994 Financial Statements (GAO/AIMD-95-141, August 4, 1995).

The primary objective of T&A systems is to ensure that time worked and absences are accurately recorded and reported for the purpose of computing pay, leave, and allowances. To meet this objective, agencies have traditionally recorded the arrival and departure times of employees daily. However, notwithstanding supervisory approvals discussed in the following section, under the exception-based T&A system you propose, recording arrival and departure times of employees is not necessary if the controls you propose and supervisory review and approvals are effectively implemented.

SUPERVISORY APPROVALS

In your current system, employees must request supervisory approval in advance to work premium hours or take leave. Supervisors approve or disapprove the request at that time, then approve T&A data at the end of the pay period, and then again, review those hours a third time during the post payroll processing review.

Instead of requiring the supervisor to perform three reviews and/or approvals, you propose that, where practical, the supervisor approve premium time and leave requests in advance and then selectively reviews T&A information at the end of a pay period and after payroll processing.

One of the essential control techniques that helps ensure that T&A data are accurate for processing of pay, leave, and other benefits is a supervisory review and approval at the end of a pay period before payroll processing. Such approval affixes accountability for the accuracy of T&A data to the supervisor and, accordingly, gives needed assurance that pay, leave, and allowance information is reliable. This is especially true under an exception-based system in which employees record their own T&A data.

As a minimum, we suggest that your system, when implemented, require supervisors to review and approve employees' T&A data at the end of each pay period.

EMPLOYEES MAINTAINING THEIR OWN T&A DATA

Although Title 6 currently limits the self-maintenance of T&A data, we are reviewing the requirements in the Title with a view toward allowing self-maintenance of the data if internal

controls ensure accuracy.² Also, we have recently stated that employees may maintain their own T&A data under an exception-based system when adequate controls exist.³

Your staff indicated that the responsibility of the supervisor to monitor the presence and absence of staff, as exists under the current system, would be the primary control to ensure that accurate T&A data are recorded. When employees maintain their own T&A data, without a timekeeper's involvement, supervisors who verify and approve the data would need to pay closer attention to staff arrival and departure times to ensure that all exceptions (under the exception-based system you propose) are recorded accurately and promptly. Also, if a supervisor currently obtains assurance of employees' work time through assessment of work output or through other means, he or she would need to pay closer attention to the fact that such assessments or other actions will help provide the basis for approval of T&A data since timekeepers would no longer record T&A data. We suggest that supervisors (1) be required to verify that employees record exceptions to the preapproved work schedule and (2) be reminded of the need for closer monitoring, especially during the first few months of implementation of the proposed system.

EMPLOYEES MAINTAINING
SUPPORTING LEAVE DOCUMENTATION

Under the current system, documentation supporting leave is maintained by the timekeeper along with other T&A data of employees. However, instead of the timekeeper maintaining the files of hard-copy leave documentation, you propose that the employee maintain the official leave documentation after review by the timekeeper and/or supervisor.

While Title 6 does not preclude employees from retaining official leave documentation, cost-effective controls should exist to ensure the availability of documents for later review or audit. Your staff stated that under the proposed system, employees will be provided guidance on document

²In the near future, we intend to revise selected provisions of Title 6, one of which concerns the self-maintenance of T&A data.

³Title 6 T&A Data (NRC) (GAO/AIMD-95-139R, May 23, 1995) and Title 6 T&A Data (NASA) (GAO/AIMD-95-140R, May 23, 1995).

retention and storage procedures and that this guidance will incorporate the requirements issued by the General Services Administration and those in Title 8, "Records Retention," of the GAO Policy and Procedures Manual. In addition, your staff stated that procedures will be implemented to ensure that all official leave records falling within the retention period would be turned over to the agency upon separation or retirement of any employee.⁴

We believe that these procedures provide reasonable assurance that leave records will be effectively retained by permanent employees and be available for review within the retention period.

AUTOMATED SIGNATURES

As we understand your proposal, when fully implemented, the system will be electronic and would include automated signatures for approval of T&A data. Although we realize that the design and implementation of the automated aspects of the system have yet to be determined, we wish to point out certain features that should exist in the automated signature portion of the design as it relates to the approval of T&A data.

One of the primary objectives of all signatures in T&A systems is to ensure integrity of the data. Proper electronic signatures should be (1) unique to the signer, (2) under the signer's sole control, and (3) capable of being verified.⁵ In addition, to ensure data integrity, electronic signatures must be linked to the data in the document in such a way that the signature will be invalidated whenever any data are changed.

⁴As we understand it, IRS hires many "permanent/seasonal" employees for work during busy seasons, and these employees are furloughed for no more than 6 months at any time. If they are furloughed for over 6 months, they are no longer considered permanent. Your staff stated that special procedures, such as obtaining a required employee attestation, will be implemented for these employees to ensure that all leave documents within the retention period are turned in upon temporary furlough (of over 2 weeks) or permanent separation from IRS.

⁵See 71 Comp. Gen. 109 (1991).

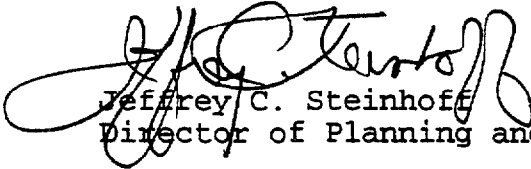
B-262055

The National Institute of Standards and Technology⁶ (NIST) has established procedures for the evaluation and approval of automated signature techniques⁷ to ensure integrity of data and compliance with the previously mentioned criteria. The automated signature generation and validation process, upon full implementation of the new system, should therefore comply with NIST standards.

- - - - -

The contents of this letter were discussed with Ms. Evelyn Horoszewski of your staff. I hope our comments are helpful as you look for ways to streamline your administrative processes and reduce the cost of the government. If you have any questions or would like to discuss these matters further, please contact Bruce Michelson, Assistant Director, at (202) 512-9366.

Sincerely yours,



Jeffrey C. Steinhoff
Director of Planning and Reporting

(922219)

⁶Under the requirements of the Computer Security Act, NIST is responsible for establishing standards for federal computer systems that process sensitive but unclassified information.

⁷These procedures are in various Federal Information Processing Standards.

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20884-6015**

or visit:

**Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC**

Orders may also be placed by calling (202) 512-6000 or by using fax number (301) 258-4066, or TDD (301) 413-0006.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (301) 258-4097 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

**United States
General Accounting Office
Washington, D.C. 20548-0001**

<p>Bulk Rate Postage & Fees Paid GAO Permit No. G100</p>

**Official Business
Penalty for Private Use \$300**

Address Correction Requested



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

Accounting and Information
Management Division

B-262055

October 11, 1995

Ms. Darlene Berthod
National Director of Personnel
Internal Revenue Service
Department of the Treasury

Dear Ms. Berthod:

Your letter to the Comptroller General has been forwarded to our division for response. You asked for interpretations to or waivers from certain time and attendance (T&A) requirements in chapter 3, Title 6, "Pay, Leave, and Allowances," of GAO's Policy and Procedures Manual for Guidance of Federal Agencies. Specifically, you asked if (1) a record should be made and retained of clock times of hours worked, (2) a supervisor must approve each employee's T&A data twice, (3) employees can maintain their own T&A records, and (4) employees can retain documentation supporting leave.

As described in your letter, the Internal Revenue Service (IRS) is modifying its T&A system in response to both the National Performance Review initiatives to streamline administrative operations and reduce federal costs and the current trend to realign work and downsize. This modification, when implemented, will result in a "paperless" T&A system. We support initiatives to create a government that works better and costs less. At the same time, we believe that agencies must protect the government's interest.

To more fully understand your request, we contacted your staff and discussed the proposal in more detail. In our fiscal year 1994 financial audit of IRS, we reviewed internal controls over the current payroll process and did not report

any material weaknesses.¹ However, we did not test your proposed system, and consequently, our response only addresses the proposal conceptually and does not address whether your present system can accommodate the proposal.

A discussion of the four questions you raised follows. Also, since your new T&A system, when fully implemented, will be automated, we address the need to ensure data integrity when using automated signatures. Where we identified internal control concerns, we offer certain control procedures to alleviate the concerns. Based on our understanding of your proposal, we have no objection to its implementation provided that the controls we suggest are effectively implemented.

RECORDING CLOCK TIMES

Your current T&A system requires recording time of arrival and departure so that timekeepers can properly record additional entitlements such as night differential or Sunday premium. In lieu of recording arrival and departure times, you propose to use a "time code" which will be entered into an automated system by employees at the end of the pay period or when variances from their pre-established work schedules occur. The time codes are automated designated codes for regular or premium hours worked or leave taken. The codes also identify the type of premium hours; type of leave; and cost accounting information, such as type of work, function to which the work relates, program, and organizational unit. One of the primary edits built into the system will be an automatic match of time codes to an employees "work profile," which is a file identifying only those codes each employee is authorized to charge. The system will automatically reject charges to unauthorized codes.

Under the system you propose, an employee will be required to have premium time and leave approved by their supervisor in advance, if practical. At the end of the pay period, T&A data for each employee, including time codes and leave information, can be reviewed and noted by supervisor. Also, supervisors will be required to closely monitor their employees' work time and to use other techniques, such as comparing work output to time spent to provide a basis for T&A approval.

¹Examination of IRS' Fiscal Year 1994 Financial Statements (GAO/AIMD-95-141, August 4, 1995).

The primary objective of T&A systems is to ensure that time worked and absences are accurately recorded and reported for the purpose of computing pay, leave, and allowances. To meet this objective, agencies have traditionally recorded the arrival and departure times of employees daily. However, notwithstanding supervisory approvals discussed in the following section, under the exception-based T&A system you propose, recording arrival and departure times of employees is not necessary if the controls you propose and supervisory review and approvals are effectively implemented.

SUPERVISORY APPROVALS

In your current system, employees must request supervisory approval in advance to work premium hours or take leave. Supervisors approve or disapprove the request at that time, then approve T&A data at the end of the pay period, and then again, review those hours a third time during the post payroll processing review.

Instead of requiring the supervisor to perform three reviews and/or approvals, you propose that, where practical, the supervisor approve premium time and leave requests in advance and then selectively reviews T&A information at the end of a pay period and after payroll processing.

One of the essential control techniques that helps ensure that T&A data are accurate for processing of pay, leave, and other benefits is a supervisory review and approval at the end of a pay period before payroll processing. Such approval affixes accountability for the accuracy of T&A data to the supervisor and, accordingly, gives needed assurance that pay, leave, and allowance information is reliable. This is especially true under an exception-based system in which employees record their own T&A data.

As a minimum, we suggest that your system, when implemented, require supervisors to review and approve employees' T&A data at the end of each pay period.

EMPLOYEES MAINTAINING THEIR OWN T&A DATA

Although Title 6 currently limits the self-maintenance of T&A data, we are reviewing the requirements in the Title with a view toward allowing self-maintenance of the data if internal

controls ensure accuracy.² Also, we have recently stated that employees may maintain their own T&A data under an exception-based system when adequate controls exist.³

Your staff indicated that the responsibility of the supervisor to monitor the presence and absence of staff, as exists under the current system, would be the primary control to ensure that accurate T&A data are recorded. When employees maintain their own T&A data, without a timekeeper's involvement, supervisors who verify and approve the data would need to pay closer attention to staff arrival and departure times to ensure that all exceptions (under the exception-based system you propose) are recorded accurately and promptly. Also, if a supervisor currently obtains assurance of employees' work time through assessment of work output or through other means, he or she would need to pay closer attention to the fact that such assessments or other actions will help provide the basis for approval of T&A data since timekeepers would no longer record T&A data. We suggest that supervisors (1) be required to verify that employees record exceptions to the preapproved work schedule and (2) be reminded of the need for closer monitoring, especially during the first few months of implementation of the proposed system.

EMPLOYEES MAINTAINING
SUPPORTING LEAVE DOCUMENTATION

Under the current system, documentation supporting leave is maintained by the timekeeper along with other T&A data of employees. However, instead of the timekeeper maintaining the files of hard-copy leave documentation, you propose that the employee maintain the official leave documentation after review by the timekeeper and/or supervisor.

While Title 6 does not preclude employees from retaining official leave documentation, cost-effective controls should exist to ensure the availability of documents for later review or audit. Your staff stated that under the proposed system, employees will be provided guidance on document

²In the near future, we intend to revise selected provisions of Title 6, one of which concerns the self-maintenance of T&A data.

³Title 6 T&A Data (NRC) (GAO/AIMD-95-139R, May 23, 1995) and Title 6 T&A Data (NASA) (GAO/AIMD-95-140R, May 23, 1995).

retention and storage procedures and that this guidance will incorporate the requirements issued by the General Services Administration and those in Title 8, "Records Retention," of the GAO Policy and Procedures Manual. In addition, your staff stated that procedures will be implemented to ensure that all official leave records falling within the retention period would be turned over to the agency upon separation or retirement of any employee.⁴

We believe that these procedures provide reasonable assurance that leave records will be effectively retained by permanent employees and be available for review within the retention period.

AUTOMATED SIGNATURES

As we understand your proposal, when fully implemented, the system will be electronic and would include automated signatures for approval of T&A data. Although we realize that the design and implementation of the automated aspects of the system have yet to be determined, we wish to point out certain features that should exist in the automated signature portion of the design as it relates to the approval of T&A data.

One of the primary objectives of all signatures in T&A systems is to ensure integrity of the data. Proper electronic signatures should be (1) unique to the signer, (2) under the signer's sole control, and (3) capable of being verified.⁵ In addition, to ensure data integrity, electronic signatures must be linked to the data in the document in such a way that the signature will be invalidated whenever any data are changed.

⁴As we understand it, IRS hires many "permanent/seasonal" employees for work during busy seasons, and these employees are furloughed for no more than 6 months at any time. If they are furloughed for over 6 months, they are no longer considered permanent. Your staff stated that special procedures, such as obtaining a required employee attestation, will be implemented for these employees to ensure that all leave documents within the retention period are turned in upon temporary furlough (of over 2 weeks) or permanent separation from IRS.

⁵See 71 Comp. Gen. 109 (1991).

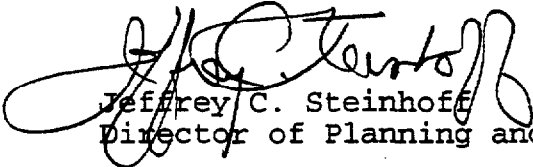
B-262055

The National Institute of Standards and Technology⁶ (NIST) has established procedures for the evaluation and approval of automated signature techniques⁷ to ensure integrity of data and compliance with the previously mentioned criteria. The automated signature generation and validation process, upon full implementation of the new system, should therefore comply with NIST standards.

- - - - -

The contents of this letter were discussed with Ms. Evelyn Horoszewski of your staff. I hope our comments are helpful as you look for ways to streamline your administrative processes and reduce the cost of the government. If you have any questions or would like to discuss these matters further, please contact Bruce Michelson, Assistant Director, at (202) 512-9366.

Sincerely yours,



Jeffrey C. Steinhoff
Director of Planning and Reporting

(922219)

⁶Under the requirements of the Computer Security Act, NIST is responsible for establishing standards for federal computer systems that process sensitive but unclassified information.

⁷These procedures are in various Federal Information Processing Standards.

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20884-6015**

or visit:

**Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC**

Orders may also be placed by calling (202) 512-6000 or by using fax number (301) 258-4066, or TDD (301) 413-0006.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (301) 258-4097 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

**United States
General Accounting Office
Washington, D.C. 20548-0001**

<p>Bulk Rate Postage & Fees Paid GAO Permit No. G100</p>

**Official Business
Penalty for Private Use \$300**

Address Correction Requested
