

April 27, 2011

SUSAN M. BROWNELL VICE PRESIDENT, SUPPLY MANAGEMENT

SUBJECT: Audit Report – Contract Management Data (Report Number CA-AR-11-002)

This report presents the results of our self-initiated audit of contract management data (Project Number 10YG010CA001). Our objectives were to assess the U.S. Postal Service's capability to collect, maintain, and validate contract management data to support the contract administration process and to evaluate policies and processes in place to ensure data integrity. This work was conducted as a follow-up to an initial joint request¹ from Senators Susan M. Collins, ranking member, Senate Committee on Homeland Security & Governmental Affairs, and Claire C. McCaskill, chair, Subcommittee on Contract Oversight. Specifically, we were asked to determine how the Postal Service uses automation to manage their contracts with transparency and what barriers exist that prevent the Postal Service from maintaining and reporting contract data. This audit addresses financial and operational risks. See Appendix A for additional information about this audit.

The Postal Service is exempt from the Federal Funding Accountability and Transparency Act of 2006 (FFATA), and therefore, is not required to use the Federal Procurement Data System (FPDS)² to post contract action data. However, the Postal Service uses the Enterprise Data Warehouse (EDW)³ as itsr entity-wide repository to provide internal transparency to manage contracts and spend data. Postal Service contracting officials primarily use the Contract Authoring and Management System (CAMS) to create contract documents. During October 1, 2007, through March 31, 2010, CAMS contained 51,399 of 69,730 contracting actions (approximately 74 percent). There were 16,379 actions (approximately 23 percent) in the Transportation Contract Support System⁴ (TCSS) and 1,952 actions (approximately

¹ The original request resulted in U.S. Postal Service Office of Inspector General (OIG) issuing a report titled U.S. Postal Service Purchasing Policies (Report Number

CA-AR-10-005, dated September 20, 2010). ² The single authoritative repository for federal procurement award data, FPDS is an automated system that collects and reports on federal procurement spending for federal agencies.

³ Developed by the Postal Service, EDW provides users access to an automated single repository for collecting, managing, and reporting Postal Service's data assets.

An Oracle Web-based application that manages transportation contracts and related activities. TCSS allows contracting officers to solicit, award, and administer transportation contracts.

3 percent) in the Facilities Management System⁵ (eFMS). All three systems interface and provide data into EDW. However, we selected CAMS as our focus for this audit, because it contains the universe of the most contracting dollars.

Conclusion

Postal Service officials did not adequately collect and maintain contract data in CAMS and should improve procedures for validating contract data and create policies and processes to ensure data integrity. Specifically, Postal Service employees did not always accurately or completely record contract data when establishing 137 of the 139 contracting actions in CAMS that we reviewed. These actions were valued at approximately \$2.1 billion. System design limitations contributed to 73 percent of the errors, and employee input errors accounted for 27 percent of the errors identified. As a result, the Postal Service cannot accurately report on its contracts. This impacts the transparency of the reported data and could result in erroneous decisions based on incomplete and incorrect contract data. Furthermore, the OIG attempted to develop a risk model to conduct continuous reviews of Postal Service contracts while also identifying areas of emerging risk. However, we found the data was too unreliable to use.

Contract Data Integrity

We reviewed the recording of nine pertinent data elements⁶ in CAMS. The CAMS manual states three of the nine elements: procurement type, modification type, and payment terms are required data elements. We viewed these nine data elements as critical, because they describe the types of contracts awarded, how contracts are awarded, when procurements are made, and the types of products and services purchased. In addition, the Supplying Principles and Practices (SP&Ps) identified three of the elements⁷ we tested as important and Supply Management Infrastructure included them in previous reviews.

For fiscal year (FYs) 2008 and 2009, Postal Service employees did not always accurately record or complete contract data when establishing contracting actions in CAMS. Of the 139 contracting actions statistically selected, 137 (99 percent), valued at approximately \$2.1 billion, contained an error or multiple errors⁸ for the following six elements:

- Award Type.
- Procurement Type.
- Modification Type.

⁵ The official report of all Postal Service-Controlled Real Property, eFMS compiles the descriptive, management, and financial data of each property for which the Postal Service has some form of management control, whether by ownership, lease, permit, or other means.
⁶ The data elements we selected were award type, procurement type, modification type, contract effective date,

⁶ The data elements we selected were award type, procurement type, modification type, contract effective date, award date signed, primary product code, performance start date, performance end date, and payment terms.
⁷ These elements were award type, procurement type, and primary product code.

⁸ An error represents an occurrence where CAMS data did not agree with the data in the contract file.

- Contract Effective Date.
- Award Date Signed.⁹
- Primary Product Code.

Employees generally entered the correct data for the following three elements: performance start date, performance end date, and payment terms. Additionally, two contracting actions contained no errors. However, 60 percent of the contracting actions had three errors or more (see Table 1).

| Table 1: Contracting Actions with Errors | | | |
|--|-------------------------------------|--------------------------|--|
| Number of Errors | Number of Contracting Actions | Cumulative Percentage | |
| 0 | 2 | 100% | |
| 1 | 25 | 99% | |
| 2 | 29 | 81% | |
| 3 | 54 | 60% | |
| 4 | 21 | 21% | |
| 5 | 7 | 6% | |
| 6 | 1 | 1% | |
| Total | 139 | | |

Table 2 shows 73 percent of the errors occurred primarily because of system design limitations in CAMS. CAMS is a commercial off-the-shelf package that is not specifically tailored to the Postal Service's contracting practices.

| Table 2: Number of Error Occurrences | | | | | |
|--------------------------------------|---|-----|--|--|--|
| | Number of Error Occurrences Percentage | | | | |
| System Design | 267 | 73% | | | |
| Employee Input Errors | 99 | 27% | | | |
| Total 366 100% | | | | | |

Also, the employee input errors, which accounted for 27 percent of all errors, occurred because—

- Guidance in the CAMS manual¹⁰ on populating CAMS data elements is not clear, leading to inconsistent input approaches.
- Not all contracting personnel received CAMS training, because it is not mandatory.

⁹ The award date signed field is the signature block for the contracting officer to bind the terms of the contract.

¹⁰ Contract Authoring Management System Award User Workbook, v. 4.10.

Data Validation

The Institute for Supply Management (ISM) recommends as a best practice establishing policies and procedures and defining roles and responsibilities to ensure data integrity. Other best practices in master data management¹¹ suggest cleansing, classifying, and validating data before storage. For federal agencies, the Federal Acquisition Regulation (FAR) mandates annual certification of contract action reports (CAR) data for completeness and accuracy for the data entered into FPDS. One best practice observed at a Category Management Center (CMC) is a guarterly electronic contract file internal review performed for each CAMS user within that CMC. The CMC employee reviews the electronic contract file to ensure data completeness and the existence of appropriate electronic support documentation. CMC employees then complete a CAMS contracts electronic data integrity evaluation sheet summarizing the findings and share it with appropriate personnel. In May 2009, Supply Management implemented a highlevel routing feature in CAMS to certify the approval of contract documents; however, no policy exists that establishes data integrity roles and responsibilities of the employees.

Because employees did not accurately record or complete contract data in CAMS, the Postal Service cannot accurately report the types of contracts it awards, how it awards them, when it makes procurements, and the types of products and services purchased. In the audit titled U.S. Postal Service Purchasing Policies (Report Number CA-AR-10-005, dated September 20, 2010), the Postal Service could not provide an accurate list of all noncompetitive contracts from CAMS. Because of the significant number of errors identified in CAMS data, management is potentially basing important decisions on flawed data. Unreliable and inaccurate data poses a significant challenge to the Postal Service. It could impact the agency's ability to effectively support management's decisions and to assist officials across multiple Supply Management Portfolios and CMCs. We consider \$4.5 billion as other impact for data reliability¹² due to inaccurate data recorded in CAMS to support management decisions. These amounts are not necessarily actual losses incurred by the Postal Service. See Appendix C for our calculation of the other impact. See Appendix B for our detailed analysis of this topic.

Postal Service officials acknowledge the insufficient design of CAMS with respect to capturing data. On February 8, 2011, Supply Management announced plans to redesign and rename the following elements in CAMS to capture pertinent contract data:

- Award type will become contract/order type (pricing) and will be used to better capture pertinent contract type information.
- Procurement type will become competitive classification and will be used to capture the competitive status of the contract.

¹¹ Master data management is defined as the management of critical attributes of important data entities in your enterprise, such as vendor and client, that are leveraged by cross-enterprise applications. ¹² Data used to support management decisions but that is not fully supported or completely accurate. This can be the

result of flawed methodology; procedural errors; or missing or unsupported facts, assumptions or conclusions.

 Modification type will become action reason and will be used to better label the reason for modifications.

In addition, Supply Management officials began conducting contract file and CAMS training in March 2011. In the training, they emphasized the use of contract effective date and primary product code. Because system design errors significantly impact the Postal Service's ability to accurately use the award date signed field, the Postal Service has elected to rely on the contract effective date field to collect data relevant to award date signed.

We recommend the vice president, Supply Management:

- 1. Modify the Contract Authoring Management System to adequately capture contract data.
- 2. Develop guidance to define data elements that should be recorded in the Contract Authoring Management System.
- 3. Develop mandatory training for all employees with access to the Contract Authoring Management System.
- 4. Develop a process along with policies and procedures to ensure validity and completeness of contract data and establish definitions of employees' roles and responsibilities for data quality.

Management's Comments

Management agreed with all recommendations. Management stated they completed the system coding enhancements, which will increase the reporting accuracy of CAMS contract classification data on March 22, 2011. In addition, management stated they conducted CAMS rapid refresher training in March and April 2011. The training focused on key processes and data elements in CAMS to include process changes regarding validity and completeness of contract data. The training also emphasized employee roles and responsibilities for data quality. Further, management stated they plan to update the CAMS data element guide based on the recently completed training sessions, and processes and responsibilities for data review will be incorporated into the guide.

Management stated they agree that some changes are needed to improve CAMS data integrity and reporting; however, management disagreed with our conclusions and other impact. Management stated the OIG focused its conclusions on a significant number of data elements that are of secondary importance versus elements they primarily use in contract administration and management. Management stated that four of the OIG reviewed data elements¹³ provide classification information and insight into contracting trends but are limited in value for contract management purposes.

¹³ Award type, procurement type, modification type, and primary product code

In addition, management stated they agree data integrity is important for decision making efforts but disagree with OIG in categorizing system design limitations as data errors. Management also did not agree with the impact calculation but could offer no alternative because of the lack of information provided about the OIG's findings. See Appendix D for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations and corrective actions should resolve the issues identified in the report. We commend management for initiating corrective actions during the course of our audit.

Management stated they cannot agree to the impact identified in our report because of insufficient information provided by the OIG. However, in addition to this report, we provided management, at their request, with detailed data behind every contract reviewed and data element tested.

We have further concerns regarding some of management's more specific statements. Management pointed out the OIG focused its conclusions on a significant number of data elements that are of secondary importance versus elements that management primarily use in contract administration and management. The data elements we selected for review represent pertinent data for basic contract reporting. In addition, three data elements we reviewed were included in prior internal reviews performed by Supply Management and were described as important in the SP&Ps. In total, we reviewed nine CAMS data elements.

The four data elements that management considered limited in value for contract management purposes describe the types of contracts awarded (award type), how contracts are awarded (procurement type), the purpose of the contracting actions (modification type), and the types of products and services purchased (primary product code). These four data elements cover basic, critical information that needs to be recorded correctly in any contract awarded by a federal entity. For example, the errors with procurement type data element resulted in the Postal Service being unable to correctly identify its noncompetitive contracting universe.¹⁴ The Postal Service is currently revising how all four elements are captured to allow it to capture the correct data.

Management also pointed out they do not agree that system design limitations should be considered data errors. Our review focused on comparing CAMS data to the data in the contract file. If the data did not agree, regardless of the reason why, it is a data integrity issue. The data in the system should match the data contained in the contract file to ensure management decisions are based on accurate information. Also, management's analysis of our impact calculation is incorrect. Based on discussion with management, we agreed to exclude 25 contracting actions containing only system

¹⁴ U.S. Postal Service Purchasing Policies (Report Number CA-AR-10-005, dated September 20, 2010).

design errors from our impact calculation. We did this because Supply Management stated that it was not possible to make system changes to accurately capture the data associated with the related data element errors. In addition, Supply Management is taking steps to ensure the data from those data elements is captured elsewhere in the system and that employees are trained in using those alternate data elements. However, we did not agree to reduce our impact calculation for the remaining system design errors, because Supply Management is able to make system enhancements to improve the accuracy of the data captured for the impacted data elements.

The OIG considers all the recommendations significant and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective action(s) are completed. These recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation(s) can be closed. Management stated that they consider action toward recommendation 1 completed as of April 7, 2011. Management did not make a decision in capturing the primary product code. Therefore, the recommendation will remain open. We look forward to management's full action plan for addressing these recommendations.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Judith Leonhardt, director, Supply Management or me at 703-248-2100.

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Mark W. Duda Deputy Assistant Inspector General for Support Operations

Attachments

cc: Joseph Corbett Deborah Giannoni-Jackson Susan M. LaChance Douglas P. Glair Trent K. Ensley Susan Witt Corporate Audit and Response Management

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The Postal Service is exempt from the FFATA of 2006; therefore, it is not required to use the FPDS to post contract action data. However, the Postal Service uses EDW as its entity-wide repository to provide internal transparency in managing contracts and spend data. According to the SP&Ps, certain contract actions are required to be publicized in the government-wide point of entry¹⁵ for external transparency. In addition, newspapers, trade journals, and magazines may publish contract awards.

Postal Service contracting officials primarily use three systems for contract data collection and contract management. These systems capture general contract management data and data specific to contracts in the transportation and facilities. The Postal Service developed each system to support the uniqueness of certain commodity purchases. These systems feed required data elements directly to the Accounts Payable Excellence (APEX)¹⁶ system for payment certification. During FY 2008 through March 31, 2010, the primary contract data system, CAMS, contained 51,399 contracting actions (approximately 74 percent). The transportation contract data system, TCSS, contained 16,379 actions (approximately 23 percent), and the facilities contract data system, eFMS, contained 1,952 actions (approximately 3 percent).



¹⁵ Government-wide point-of-entry, specified by SP&Ps as FedBizOpps, has been designed as a single point-of-entry for federal buyers to publish and for vendors to find posted federal business opportunities across departments and agencies.

An automated accounting system for processing and reporting of payments at the Postal Service.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our overall objectives for this audit were to assess the Postal Service's capability to collect, maintain, and validate contract management data to support the contract administration process and to evaluate the policies and processes in place to ensure data integrity. To accomplish our objectives, we reviewed the SP&Ps, CAMS manual, and data integrity policies. We also conducted interviews with the managers in Supply Management, contracting officers, purchasing specialists, and the CAMS program manager. Although the Postal Service is not required to use the FPDS, we benchmarked the Postal Service data systems against FPDS and against companies that specialize in master data management and data quality along with related associations. The purpose was to identify best practices associated with the transparency and reporting of contract data on an entity-wide basis.

We also validated data obtained from CAMS to supporting documentation. We selected CAMS as our focus for this audit, because it contains the universe of the most contracting dollars. For FYs 2008 and 2009, CAMS contained 23,205 active contracting actions valued at \$5.9 billion.¹⁷ Based on the universe, we statistically selected a sample of 139 contracting actions valued at approximately \$2.1 billion.

For the sampled actions, we selected the following CAMS data elements to evaluate:

- Award Type.
- Procurement Type.
- Modification Type.
- Contract Effective Date
- Award Date Signed.
- Primary Product Code.
- Performance Start Date.
- Performance End Date.
- Payment Terms.

These elements describe the types of contracts awarded (award type), how contracts are awarded (procurement type), identifies the purpose of the contracting actions (modification type); when procurements are made (contract effective date and award date signed), the types of products and services purchased (primary product code), and terms of the contract (payment terms, performance start and end dates). These elements represent pertinent data for basic contract reporting and were included in prior internal reviews performed by Supply Management Infrastructure Compliance teams. Further, the SP&Ps describe contract (award) type, modification type, and contract effective date as important data elements. Because of system design errors, the Postal Service cannot accurately populate the award date signed field. The Postal Service has chosen to rely on the contract effective date as an alternative to capturing award date signed. Use of the contract effective date field is emphasized in the current training.

¹⁷ We excluded closed and canceled contracting actions and those examined in the *U.S. Postal Service Purchasing Policies* (Report Number CA-AR-10-005, dated September 20, 2010).

We conducted this performance audit from May 2010 through March 2011 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We discussed our observations and conclusions with management on March 2, 2011, and included their comments where appropriate.

We assessed the reliability of contract data by comparing the CAMS data to source documentation. We determined that the CAMS data was not sufficiently reliable. Our audit results report on the inadequacy of the data in CAMS.

PRIOR AUDIT COVERAGE

Our report titled *U.S. Postal Service Purchasing Policies (*Report Number CA-AR-10-005, dated September 20, 2010) concluded that Postal Service officials could not readily identify its noncompetitive contract universe and was not consistently complying with existing controls for justifying and approving noncompetitive contracts. As a result, we classified the noncompliant, insufficiently supported contracts totaling \$218,940,344 as unsupported questioned costs, because their noncompetitive justifications do not contain all the required elements and/or approvals/endorsements. Management agreed with our recommendation to take steps to ensure full and accurate tracking and public reporting of noncompetitive contracting actions.

APPENDIX B: DETAILED ANALYSIS

Contract Data Integrity

For FYs 2008 and 2009, Postal Service employees did not always accurately record or complete contract data when establishing contracting actions in CAMS. Of the 139 statistically selected contracting actions, 137 (99 percent), valued at approximately \$2.1 billion, contained an error or multiple errors for the following six elements:

- Award Type.
- Procurement Type.
- Modification Type.
- Contract Effective Date.
- Award Date Signed.
- Primary Product Code.

Employees generally entered the correct data for the following three elements: performance start date, performance end date, and payment terms.

Award Type

Ninety-eight of the 139 contracting actions contained an error in describing award type.

| Table 3: Award Type | | | | |
|--|-------------------------|--------------------------|--|--|
| Condition | Cause | Number of Occurrences | | |
| CAMS does not allow the employee to select an award type for "Delivery/Task Orders" | System Design | 57 | | |
| CAMS does not allow the employee to select more than one award type for hybrid contracting actions | System Design | 28 | | |
| Employees selected the incorrect award type in CAMS | Employee Input Error | 7 | | |
| CAMS does not allow the employee to select the appropriate award type | System Design | 6 | | |
| Total | | 98 | | |

CAMS populated the award type field as delivery/task order for 57 contracting actions. Although classifying the contracting action as a delivery/task order is informative, it does not specifically capture whether the action was, for example, fixed price or time and material. This occurred because CAMS automatically populates the award type field with a delivery/task order when it is selected as the document type.¹⁸ Furthermore,

¹⁸ Document type is an option in CAMS that provides the template for the user on how to create a contract, delivery/task order, or solicitation.

when delivery/task order is selected, the employee is not given the option of populating the award type, unless the employee is adding a new line to the award.

The Postal Service has contracts with multiple award types; therefore, employees were unable to select multiple award types for 28 contracting actions. For example, a contract may have been an indefinite quantity and fixed-price contract, but because of the system design in CAMS, the employees are limited to select only one award type.

Employees selected the incorrect award type for seven contracting actions. For example, a contract may have been a cost reimbursement contract, but CAMS identified it as a fixed-price contract. Also, we identified six contracting actions in CAMS that did not allow employees to select the appropriate award type because of the limited award type selections. For example, we identified a contract that was fixed-price with economic price adjustment; however, CAMS did not offer this award type as a selection, although it is a choice in the CAMS manual.

Procurement Type

| Table 4: Procurement Type | | | | |
|---|-------------------------|--------------------------|--|--|
| Condition | Cause | Number of Occurrences | | |
| CAMS does not clearly define the purchase method as competitive or noncompetitive | System Design | 68 | | |
| Employees selected the incorrect procurement type in CAMS | Employee Input Error | 8 | | |
| Employees did not select a procurement type in CAMS | Employee Input Error | 6 | | |
| Total | | 82 | | |

Eighty-two of the 139 contracting actions contained an error in describing procurement type.

In addition to competitive and noncompetitive, CAMS offers employees several different methods to make their purchases. We found 68 occurrences where employees selected other option as the procurement type. For instance, employees selected procurement types such as Orders Under Postal Service Ordering Agreements and Strategic National Automated Purchasing System (SNAPS) Renumbered to CAMS Number. Although these options provide information about the contracting action, they do not specifically capture whether the action was competitive or noncompetitive. We previously reported¹⁹ that Postal Service's contracting systems do not classify all contracts as competitive or noncompetitive.

¹⁹ U.S. Postal Service Purchasing Policies (Report Number CA-AR-10-005, dated September 20, 2010).

Further,, employees selected the incorrect procurement type for eight contracting actions. We identified noncompetitive contracting actions recorded as competitive actions in CAMS. Moreover, we found six contracting actions where employees did not select a procurement type in CAMS, although the procurement type is a required field according to the CAMS manual.

Modification Type

Forty-eight of the 139 contracting actions contained an error in modification type.

| Table 5: Modification Type | | | |
|--|--------------------------|----|--|
| Condition | Number of Occurrences | | |
| Employees selected the incorrect modification type in CAMS | Employee Input Error | 28 | |
| Employees did not select a modification type in CAMS | Employee Input Error | 20 | |
| Total | 48 | | |

We identified 28 instances where employees selected the incorrect modification type. For example, we found employees selected supplemental/bilateral when the modification was for a renewal. In addition, incidents occurred in which employees selected a modification type for base awards, which are considered original contracts, not modifications. Furthermore, we identified 20 contracting actions in which employees did not select a modification type, although the modification type is a required field according to the CAMS manual.

Contract Effective Date

Eleven of the 139 contracting actions contained an error in contract effective date.

| Table 6: Contract Effective Date | | | |
|---|--------------------------|----|--|
| Condition | Number of Occurrences | | |
| Employees entered the incorrect contract effective date in CAMS | Employee Input Error | 10 | |
| Employee did not enter the contract effective date into CAMS | Employee Input Error | 1 | |
| Total | | 11 | |

Employees entered the incorrect date for the contract effective date field in CAMS for 10 contracting actions. For example, we identified a contract that had a contract effective date of June 5, 2008, but CAMS reflected February 12, 2008, as the effective date. In addition, we identified one instance in which the employee did not enter the contract effective date in CAMS. Therefore, the system defaulted to January 1, 1900.

Award Date Signed

One hundred eleven of the 139 contracting actions contained an error in award date signed.

| Table 7: Award Date Signed | | | | |
|--|-------------------------|--------------------------|--|--|
| Condition | Cause | Number of Occurrences | | |
| CAMS does not allow the user to input the date after the contracting action is released in CAMS. | System Design | 108 | | |
| Employees entered the incorrect date in CAMS | Employee Input Error | 2 | | |
| Contracting officer did not sign the contracting action. | Employee Input Error | 1 | | |
| Total | | 111 | | |

Award date signed is the signature block for the contracting officer to bind the terms of the contract. We identified 108 contracting actions that had January 1, 1900, as the award date signed in CAMS. Because of the CAMS system design, employees cannot populate the field after releasing the contracting action, and as a result, CAMS defaulted the award date signed to January 1, 1900.

Also, employees entered the incorrect date for the "award date signed" field in CAMS for two contracting actions. For instance, we identified a contract that was signed by the contracting officer on September 30, 2008, but CAMS reflected September 12, 2008, as the date signed. Furthermore, we also identified one instance in which the contracting officer's signature was missing from the contracting action.

Primary Product Code

Sixteen of the 139 contracting actions contained errors with primary product codes.²⁰

| Table 8: Primary Product Code | | | |
|---|--------------------------|----|--|
| Condition | Number of Occurrences | | |
| Employees selected an incorrect product code in CAMS | Employee Input Error | 15 | |
| Employee did not select a product code in CAMS | Employee Input Error | 1 | |
| Total | | 16 | |

Employees selected the incorrect primary product code for 15 contracting actions. For example, we found that an employee selected the primary product code associated with computer hardware, but the contract file revealed the contracting action was for software maintenance. We also found one instance in which the employee did not select a primary product code.

Training

Training was identified as a key factor in the occurrences of data integrity errors. Currently, CAMS training is not mandatory for users, and although the CAMS program manager sporadically provides training on a voluntary basis, the last training was conducted in December 2008. We observed that on-line resources are available for employees at their discretion. Supply Management officials began conducting contract file and CAMS training in March 2011.

Data Validation

The ISM recommends as a best practice establishing policies and procedures and defining the roles and responsibilities of employees to ensure data integrity. Other best practices suggest cleansing, classifying, and validating data before storage. For federal agencies, FAR mandates annual certification of CAR data for completeness and accuracy for the data entered into FPDS. Within Supply Management, we observed a best practice at a CMC performed by the site administrator²¹ who:

 Performs a quarterly electronic contract file internal audit for each user at the CMC. The contract electronic file is reviewed to ensure data completeness and that appropriate electronic supportive documentation is in the file. A CAMS "Contracts Electronic Data Integrity Evaluation Sheet" is completed to summarize findings and shared with appropriate personnel.

²⁰ The Institute of Supply Management defines product code as a code attached to a product that will be used to identify and track that product.
²¹ A resource for CAMS users within a CMC to provide troubleshooting guidance and advice for CAMS data entry

²¹ A resource for CAMS users within a CMC to provide troubleshooting guidance and advice for CAMS data entry issues.

 Acts as a resource for CAMS users within the CMCs, seeking advice and guidance for CAMS data entry issues to improve data quality.

In May 2009, Supply Management implemented a high-level routing feature in CAMS to certify the approval of contract documents; however, no policy exists to establish the data integrity roles and responsibilities of employees. The SP&Ps do not contain policies on contract reporting or the validation of contract management data. The SP&Ps do provide a specific, detailed process for validating, classifying, and cleansing spend data after it is recorded into the systems. Establishing data integrity roles and responsibilities to ensure data is accurately entered in contract data systems provides for more reliable reporting, less errors, and better data consistency.

APPENDIX C: OTHER IMPACT

Data Reliability

We performed a stratified variable appraisal that allowed us to extrapolate results from a universe of 23,205 contracting actions valued at \$5,986,272,168 for FYs 2008 and 2009. We excluded the value of closed and canceled contracting actions and those contracting action values examined in the *U.S. Postal Service Purchasing Policies* (Report Number CA-AR-10-005, dated September 20, 2010) to arrive at this universe. We divided the universe into five strata to achieve a desired precision rate. Our sample size resulted in 139 contracting actions valued at approximately \$2.1 billion as shown in Table 9.

| Table 9: Number of Contracting Actions and Value of the Universe and Sampled Universe | | | | |
|---|----------|----------------------|---------------------|------------------------------|
| | Universe | Value of Universe | Sampled Universe | Value of Sampled Universe |
| Stratum 1: Values less than \$0 | 530 | -\$128,596,607 | 11 | -\$1,030,939 |
| Stratum 2: Values less than \$10,000 | 10,757 | 18,214,786 | 1 | 0 |
| Stratum 3: Values less than \$50,000 | 10,494 | 836,793,105 | 14 | 918,360 |
| Stratum 4: Values less than \$10 million | 1,341 | 2,763,797,158 | 46 | 105,576,876 |
| Stratum 5: Values greater than \$10 million | 83 | 2,496,063,726 | 67 | 1,967,969,050 |
| Total | 23,205 | \$5,986,272,168 | 139 | \$2,073,433,347 |

We found that employees did not always accurately record or complete contract data for 137 of the 139 contracting actions we reviewed in CAMS. The 137 contracting actions had an absolute value of \$2,075,441,725. We reduced the absolute value to exclude 25 contracting actions containing system design errors that could not be corrected to accurately capture the recording of award date signed and hybrid contract awards. The Postal Service is taking steps to ensure that data from these fields is captured elsewhere in the system and that employees are trained in using those alternate fields. Therefore, our statistical projection is based on 112 contracting actions, valued \$1,748,676,990. Also, because of questionable funding approvals, we excluded \$552,430,377 from our projection to avoid duplication of reportable impact. In a separate report we plan to address funding approvals.

Table 10 illustrates the basis for our statistical projection. Specifically, we projected the absolute value of \$1,196,246,614 to determine the impact of data integrity from the total universe. At a 95-percent confidence level, we projected that \$4,534,627,158 value of contracting actions contained inaccurate data recorded in CAMS. These amounts are not necessarily actual losses incurred by the Postal Service.

| Table 10: Basis for Statistical Projection | | | |
|---|-----------------------------------|---------------------------------------|---------------------------------------|
| Absolute Value of 112 Contracting Actions with Errors | Questionable Funding Approvals | Data Integrity Projection Basis | Data Integrity Projected Amount |
| \$1,748,676,990 | \$552,430,377 | \$1,196,246,613 | \$4,534,627,158 |

APPENDIX D: MANAGEMENT'S COMMENTS

SUSAN M. BROWNELL Vice President, Supply Management



April 11, 2011

LUCINE M. WILLIS

SUBJECT: Draft Audit Report – Contract Management Data (Report Number CA-AR-11-DRAFT)

Thank you for the opportunity to review and comment on the subject draft report. We regularly use multiple reports from our information systems to assist in managing operations. The data within the Contract Authoring Management System (CAMS), a commercial off-the-shelf (COTS) solution, contains a large amount of data, not all of which is of equal importance. We found that through this audit, even after many discussions, the OIG focused their conclusions on a significant number of data elements that are of secondary importance versus contract data elements that we primarily use in contract administration and management.

Contract management data such as supplier name, performance start date, performance end date, contract effective date, contract description, contract commitments, payment terms, finance number and general ledger account for billing purposes are all data elements used regularly by management. The OIG reviewed nine elements and excluded three from their analysis that we view as important including performance start date, performance end date, and payment terms. The OIG found that our employees generally entered the correct data for these elements. One of the data elements included in the review, contract effective date, is considered primarily important. Four of the OIG reviewed data elements, award type, procurement type, modification type and primary product code, provide classification information and insight into contracting trends; however, are limited in value for contract management purposes.

We agree that some changes are needed to improve CAMS data integrity and reporting. Many of the changes noted were part of our FY11 fiscal year plans and have already been implemented prior to the issuance of this report. Further details and the action plan for each recommendation are provided below.

We agree that contract data integrity is important to reporting and decision making efforts. However, the OIG considers system design limitations as data errors. We do not agree at all with these conclusions. Additionally, the report states in Appendix C that the OIG "reduced the absolute value to exclude 25 contracting actions containing system design errors that could not be corrected to accurately capture the recording of award date signed and hybrid contract awards." However, there are a total of 267 instances identified as having system design limitations of which 242 were included within the OIG's impact calculations. Therefore, we are unable to agree with the impact and can offer no other projection for this audit due to the lack of information provided about the OIG's findings.

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AUDIT RECOMMENDATIONS

We recommend the vice president, Supply Management.

Recommendation 1. Modify CAMS to adequately capture contract data.

Management Response/Action Plan: Management agrees with this recommendation and believes the system coding enhancements that were completed on March 22 will increase the reporting accuracy of CAMS contract classification data.

As mentioned within the OIG's report, CAMS is a COTS product and has certain limitations. We redesigned and renamed several elements to improve our ability to capture data elements discussed in the OIG report. The enhancements included: 1) Award Type - while the award type field remains we have requested that our contracting officers not use this system field and instead we revised our Document Types field. This field had a varying mix of descriptions and was changed to provide a distinction of contract/order types and relevant pricing structure (i.e., FFP -Firm Fixed Price, FPI - Fixed Price Incentive). 2) Procurement Type - now defines the competitive or noncompetitive classifications more clearly (i.e., CMP - Competitive, N1 - Noncompetitive - Sole Source, N2 - Noncompetitive - Compelling Business Interests). 3) Modification Type - became the Action Reason code and defines the reason for modifications (i.e., 01 - Option Exercised, 10 Termination for Default). 4) Contract Effective and Award Dates - were defined and their use clarified within a 5-week training series that was offered March 1, 2011 through April 7, 2011. The effective date is the earliest date the supplier can contractually begin work. This is a system field that defaults to the system date when the document/version is created and will require the contracting officer to update the effective date to reflect the earliest date the supplier can contractually begin work. The Award Date is also a system field that automatically defaults to the date the document was created and cannot be changed after the document is released. For this reason this date field will not be used as the official award date. The award date is the date of the last signature on the award form which will not be captured in CAMS due to the system control that prevents the contract document from being updated after release. 5) Primary Product Code - is being reviewed to determine the value and cost of revising the drop down menu to be more aligned with the commodities purchased by the Postal Service.

<u>Target Implementation Date</u>: We consider this action completed as of April 7, 2011 with the delivery of the CAMS training sessions. The training sessions will continue on a monthly basis as a leading practice continuous improvement program.

Responsible Official: Actions were completed by the Manager, Supply Chain Management Strategies.

Recommendation 2. Develop guidance to define data elements that should be recorded in the CAMS.

Management Response/Action Plan: CAMS has an extensive training library of user guides that were developed when CAMS was implemented and are available on the CAMS bluepage to all CAMS users. The guides are comprehensive on the technical nature of CAMS and how to enter contracts into the system. The CAMS classroom training sessions that were delivered when CAMS was launched detailed the specific USPS data elements yet many of the resources who attended those classroom sessions have left the USPS and thus we agree that a USPS specific CAMS contract data element guide is needed to refresh experienced users understanding and as a reference guide to new CAMS users. The CAMS data element guide will be updated based on the training sessions that were delivered in March/April 2011.

Target Implementation Date: CAMS data element guide production is scheduled for June 2011.

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Responsible Official: The responsible official is the Manager of Supply Chain Management Strategies.

Recommendation 3. Develop mandatory training for all employees with access to the CAMS.

Management Response/Action Plan: Management agrees with this recommendation and already had it planned into the FY11 CAMS program. The CAMS continuous improvement program identified the need for a rapid refresher training that focused on key processes and data elements in CAMS. A total of 10 training webinar sessions were developed and presented to CAMS users, and available to the OIG from March 1, 2011 through April 7, 2011. The training included an introduction to the new codes, business systems and their interfaces, how to process an award in CAMS, how to close out an award in CAMS; how to proceed from requisition to solicitation in CAMS, with the last two sessions providing a summary and reporting capability overview.

These sessions were the initial component of the overall updated CAMS training strategy. These initial baseline sessions will be followed by monthly spot training sessions that will focus on common questions asked by CAMS users.

The CAMS training strategy is also going to include the following:

- mandatory training for any new user of CAMS that they must complete within an agreed upon time of receiving their CAMS user ID
- · intermediate training for users on the more advanced features in CAMS
- · advanced training for reviewers and approvers of contracts

With the implementation of these sessions as an introduction to the overall training strategy that is currently being developed for employees, we ask that the OIG consider this recommendation closed upon submission of the training strategy. However, we expect that the OIG will want to ensure that the training strategy is implemented and have provided two target dates for this purpose.

Target Implementation Date: The training strategy will be completed by June 2011. And, we anticipate beginning implementation of that strategy in October 2011 after our reorganization is expected to be concluded.

<u>Responsible Official</u>: The responsible officials for the strategy and implementation are the Manager of Supply Chain Management Strategies and the Manager of Supply Management Infrastructure.

<u>Recommendation 4.</u> Develop a process along with policies and procedures to ensure validity and completeness of contract data and establish definitions of employees' roles and responsibilities for data quality.

Management Response/Action Plan: Management agrees and has already included process changes regarding the validity and completeness of contract data and employee roles and responsibilities for data quality within our 5-week training sessions presented in March and April. The processes and the responsibilities for data review and integrity will be incorporated into the CAMS data element guide.

Target Implementation Date: CAMS guide update is scheduled for June 2011.

Responsible Official: The responsible official for the CAMS guide update is the Manager of Supply Chain Management Strategies. 4

We do not believe that this report contains any proprietary or business information and may be disclosed pursuant to the Freedom of Information Act. If you have any questions about this response, please contact Susan Witt at 202 268-4833.

Susan M. Brownell

cc: Joseph Corbett Deborah Giannoni-Jackson Susan LaChance Susan Witt Corporate Audit and Response