



July 28, 2008

WALTER O'TORMEY
VICE PRESIDENT, ENGINEERING

SUBJECT: Audit Report – Mail Processing Equipment Spare Parts:
Plant Stockrooms (Report Number DA-AR-08-008)

This report presents the results of our self-initiated audit of mail processing equipment (MPE) spare parts in plant stockrooms (Project Number 08YG019DA000). Our objective was to determine whether Postal Service plant stockrooms maintained excess MPE spare parts, which is a financial risk. Click [here](#) to go to Appendix A for additional information about this audit.

[Conclusion](#)

Postal Service plant stockrooms are maintaining excess MPE spare parts. As of February 2008, the value of excess parts was approximately \$159 million, or 49 percent of the total inventory. This condition existed because maintenance personnel ordered more parts than the recommended levels. Maintenance personnel stated they ordered excess parts to prevent equipment downtime. Specifically, they did not trust the inventory system and were concerned that items might not arrive from the Topeka Material Distribution Center (MDC) within established shipping times. Excess parts were also maintained for emergencies and other unforeseen situations. In addition, maintenance personnel stated they were not periodically disposing of excess MPE spare parts because they did not have enough personnel or available workhours to redistribute, recycle, and dispose of the parts.

As a result, the Postal Service incurred unnecessary costs of approximately \$30 million during the 2 years ending February 2008 and can avoid costs of another \$30 million over the next 2 years.

Click [here](#) to go to Appendix B for our detailed analysis of this topic.

We recommend the Vice President, Engineering:

1. Update policy to prevent approval authority for orders that exceed the inventory system's recommended levels from being delegated to nonsupervisory personnel.

We recommend the Vice President, Engineering, in coordination with the Deputy Postmaster General and Chief Operating Officer, and Senior Vice President for Operations:

2. Require each Vice President, Area Operations, to submit an inventory reduction plan if the area's spare parts on hand exceed the recommended inventory level.

We recommend the Vice President, Engineering, in coordination with the Vice President, Supply Management:

3. Require material management specialists to assist maintenance managers in redistributing, recycling, and disposing of excess mail processing equipment spare parts.

Management's Comments

Management agreed with the findings, recommendations, and monetary impact and is taking the following corrective actions:

- In response to recommendation 1, management will limit authorization to override the recommended order quantity to executive and administrative salary schedule personnel only.
- In response to recommendation 2, management will issue a policy letter requesting each Vice President, Area Operations, to submit an inventory reduction plan.
- In response to recommendation 3, management will develop a plan to provide maintenance managers assistance with inventory management.

Management accepted, with reservation, the value of the excess inventory and monetary impact stated in the report. Management will notify us if a different value of excess inventory is identified through implementation of the recommendations.

Click [here](#) to go to Appendix C for management's comments in their entirety.

Evaluation of Management's Comments

The U.S. Postal Service Office of Inspector General (OIG) considers management's comments responsive to the recommendations in the report. The actions taken should correct the issues identified.

The OIG considers all recommendations significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Miguel A. Castillo, Director, Engineering, or me at (703) 248-2100.

E-Signed by Darrell E. Benjamin, Jr. 
VERIFY authenticity with ApproveIt

Darrell E. Benjamin, Jr.
Deputy Assistant Inspector General
for Support Operations

Attachments

cc: Patrick Donahoe
Anthony M. Pajunas
Susan Brownell
Ed Gamache
Katherine S. Banks

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The Topeka MDC in Topeka, Kansas, purchases stocks and manages repairable and consumable mail processing spare parts to support equipment maintenance. Maintenance stockroom personnel maintain an inventory of parts and supplies and order replacements of stocked and non-stocked inventory items to control the flow and accountability of material, minimize equipment breakdowns, and expedite repairs and routine work.

Maintenance and plant managers at each site are accountable for the inventory stored in their facilities. Under the direction of local maintenance managers, stocking clerks must maintain inventory levels to meet the demand of the maintenance, repair, and operations activities. Clerks typically replenish orders through the Enhanced Spare Parts Initiative (eSPIN) system,¹ which uses data from eMARS² and the Material Distribution and Inventory Management System (MDIMS)³ to make recommendations to buy, repair, and transfer equipment. Since its full implementation at the end of calendar year 2007, eSPIN has recommended transfers of stock from one field site to another if one site has excess stock and another site has a need. To avoid the cost of procuring unnecessary parts, eSPIN checks for excess parts before it places a new procurement order. Parts personnel can adjust the forecasted need for items at specific sites and field maintenance personnel are able to view the stock that is on hand at the Topeka MDC.⁴

Oversupply, or excess stockroom inventory, is defined as any serviceable material stocked and on order that is greater than the installation's needs and the established requisitioning objective for the part. As of February 14, 2008, the Postal Service maintained parts valued at over \$321.1 million in plant stockrooms.

Various Postal Service offices share responsibility for inventory management of MPE spare parts. The Vice President, Engineering, defines and develops policies and plans for the life-cycle support of major postal equipment and systems, and provides maintenance support of mail processing equipment. The Deputy Postmaster General and Chief Operating Officer is responsible for the national collection, sorting and distribution, transportation, and delivery of all mail under the control of the Postal Service through the Vice Presidents, Area Operations, field managers, and

¹ The eSPIN system is a commercial off-the-shelf system that plans, forecasts, and optimizes spare part inventory for field sites using the Electronic Maintenance Activity Reporting and Scheduling System (eMARS). The eSPIN system is used to forecast warehouse stock levels, largely based on historical demand data.

² The eMARS is an automated system for maintenance management that includes spare parts inventory management.

³ MDIMS is a real-time inventory system used to perform distribution for a catalog of spare parts from depot locations to plant stockrooms.

⁴ The Topeka MDC, which contains approximately 950,000 square feet, warehouses and distributes 26,000 MPE spare parts to all postal facilities. Facilities must request authorization to return materials to the Topeka MDC.

postmasters. The Senior Vice President, Operations, is responsible for providing corporate strategic direction and program support in operations planning, field operations support, network operations management, and labor relations. In addition, the Vice President, Supply Management, is responsible for establishing and maintaining national material management policies, programs, and procedures, which are published in Handbook AS-701, *Material Management*, and other Postal Service directives on purchasing and materials.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to determine whether Postal Service plant stockrooms maintained excess MPE spare parts. To fulfill our objective, we compiled the excess spare part balance as of February 2008 from part values identified and calculated in the eSPIN inventory management program. To assess the causes for excess spare parts, we interviewed and surveyed 28 District Material Management Specialists (DMMS)⁵ and maintenance stockroom personnel at 27 plants. We also met with the Manager, Maintenance Policies and Programs, and the Manager, Supply Management Programs, at Postal Service Headquarters.

To calculate monetary impact, we extracted data from eMARS and eSPIN and considered the financial implications of excess spare parts value to the time value of money⁶ and carrying costs⁷ established by the Postal Service. We performed reasonableness tests of eMARS (the basis of eSPIN) and found the data sufficiently reliable to satisfy our audit objective.

We conducted this performance audit from April through July 2008 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management officials on June 2, 2008, and included their comments where appropriate.

⁵ DMMSs are responsible for overseeing capital, expendable, and sensitive property procedures in all Postal Service facilities within their district. This responsibility includes monitoring activities, training, and providing support to maintenance managers.

⁶ Postal Service Memo: *Decision Analysis Report Factors/Cost of Borrowing/New Facility Start-up Costs Update*, dated December 6, 2007.

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PRIOR AUDIT COVERAGE

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
<i>Inventory Management – Maintenance Stockrooms</i>	AC-AR-03-007	September 30, 2003	\$131 million	As of November 2002, spare parts inventory levels in the Postal Service's maintenance stockrooms exceeded demand by a projected \$131 million. Postal Service personnel routinely ordered more parts than the inventory system's recommended levels; did not perform required annual reviews to eliminate excess parts; and did not consistently classify critical parts.

APPENDIX B: DETAILED ANALYSIS

Value of Excess Mail Processing Equipment Spare Parts

As of February 2008, the value of excess parts was approximately \$159 million⁸ (49 percent of the inventory). Chart 1 below categorizes the excess spare part value by Postal Service areas. The Western Area maintained the highest value of excess spare parts.

Chart 1. Excess Spare Parts Value by Area

Area	Excess Spare Part Value
Western	\$27,240,823
Southeast	20,327,295
Great Lakes	19,573,646
New York Metro	17,998,923
Eastern	17,785,779
Southwest	15,149,126
Capital Metro	14,140,068
Pacific	13,575,366
Northeast	12,920,259
Total	\$158,711,284

Causes for Excessive Mail Processing Equipment Spare Parts

Our field visits and survey of 27 plants showed that maintenance personnel continued to order more parts than the inventory system's recommended levels and did not dispose of excess MPE spare parts.

Replenishment Orders

Maintenance personnel ordered more parts than the inventory system's recommended quantities, resulting in excess quantities on hand. eSPIN uses a proactive forecasting model that calculates reorder points and quantities. As a result of a prior OIG audit, system controls such as management approval were implemented to prevent individuals from ordering above recommended stock levels. However, management and nonsupervisory maintenance personnel with delegated authority continued to approve the reorder of excess spare parts. Maintenance managers stated they ordered extra parts to prevent equipment downtime. Specifically:

⁸ Some parts reported as excess may be removed by designating them as critical parts. If a part is designated as critical, it will not be listed as an excess spare part.

- Managers did not trust the inventory system's recommended stock levels and were concerned that items might not arrive from the Topeka MDC within established shipping times.
- Items were deliberately stocked for emergencies and other unforeseen situations.

Parts Available for Redistribution or Disposal

Maintenance managers stated that a significant portion of the spare parts were either obsolete or not needed because:

- The machines requiring the spare parts had been removed.
- Too many parts were included in spare part kits provided by machine manufacturers when the equipment was deployed.

DMMSs, with assistance from specialists at the Material Service Centers (MSC),⁹ are responsible for reviewing excess spare parts and for providing training and technical assistance in the redistribution or disposal of inactive assets. However, the local maintenance manager has primary responsibility for stockroom inventory management. Handbook AS-701 details procedures for managing excess spare parts. Procedures include the following:

- Redistribution of parts from one postal installation to another (Handbook AS-701, part 631).
- Return of centrally stocked items to the Topeka MDC. The Topeka MDC will not accept items unless they are new, properly marked, in original packaging at full carton quantities, and at least \$50 in value. The appropriate item manager evaluates all requests for return to determine which items are authorized for return (Handbook AS-701, part 633.1).
- Return of items to the local vendor that furnished them (Handbook AS-701, part 633.1).
- Disposal of obsolete parts (Handbook AS-701, chapter 6).

Our survey of 28 DMMSs showed that most were helping maintenance personnel identify excess MPE spare parts. However, stockroom managers were not redistributing, recycling, and disposing of excess MPE spare parts. DMMSs indicated

⁹ Each of the four MSCs is staffed with a supply management specialist team leader and three material management specialists. The MSCs provide direct material management guidance and support to the DMMSs and cross-functional support to all Postal Service material management activities within their service areas.

that in some cases, stockroom managers did not have enough personnel or available workhours to reduce the number of spare parts. In addition, DMMSs stated that they were not authorized to reduce excess spare parts; they believed this was the maintenance manager's responsibility.

Impact of Maintaining Excessive Spares

Reduction of excess spare parts will yield significant savings by avoiding the cost of money (approximately 4.5 percent of inventory value) and carrying costs of excess inventory (approximately 5 percent of inventory value). As shown in Chart 2, excess spare parts valued at approximately \$159 million¹⁰ cost the Postal Service approximately \$30 million for the 2-year period ending February 14, 2008. If uncorrected, the cost for the next 2 years will be approximately \$30 million, for a total monetary impact of \$60 million.

Chart 2. Calculation of Questioned and Avoidable Costs

Monetary Impact		
Questioned Costs		
Total excess MPE spare parts in plant stockrooms as of February 14, 2008	\$158,711,284	
Estimated cost of money (4.5 percent) and cost to carry excess inventory (5 percent)	9.5 percent	
Number of years Questioned Costs claimed (February 15, 2006, through February 14, 2008)	2	
Total Questioned Cost		\$30,155,144
Funds Put to Better Use (Avoidable)		
Total excess MPE spare parts in plant stockrooms as of February 14, 2008	\$158,711,284	
Estimated cost of money (4.5 percent) and cost to carry excess inventory (5 percent)	9.5 percent	
Number of years Funds Put to Better Use claimed (February 15, 2008, through February 14, 2010)	2	
Total Funds Put to Better Use		\$30,155,144
Total Monetary Impact		\$60,310,288

¹⁰ It is estimated that a portion of parts reported as excess can be removed by modifying the formula used by eSPIN to compute the number of excess parts and by redesignating some parts as critical parts. More precise identification of excess parts will assist management in controlling spare parts inventory.

APPENDIX C. MANAGEMENT'S COMMENTS

WALTER O'TORMEY
VICE PRESIDENT
ENGINEERING



July 22, 2008

LUCINE WILLIS
DIRECTOR, AUDIT OPERATIONS
1735 NORTH LYNN STREET
ARLINGTON, VA 22209-2020

SUBJECT: Draft Audit Report – Inventory Management:
Maintenance Stockrooms (Report Number DA-AR-08-DRAFT)

We appreciate the opportunity to review and comment on the subject draft audit report. Generally, we are in concurrence with the report's recommendations and Attachment A provides specific responses to each recommendation.

While we have reservations that the value of excess inventory is as high as the \$159 million identified, we will accept that amount unless, through implementation of these recommendations we identify a significantly different value. Should a significantly different value be identified, the \$30,155,144 monetary impact would also change and we would immediately contact your office with our data. We believe that implementation of your recommendations will assist in improving inventory management in maintenance stockrooms nationwide.

A critical factor that must be stated is that the Postal Service has a basic operations philosophy that requires maintenance ensure that our equipment has minimum downtime. The cost of machine unavailability is extremely expensive to our operations. Therefore, we will err toward ensuring that spare part shortages do not result in excess downtime and its resultant cost consequences.

We do not believe that this report contains any proprietary or business information and may be disclosed pursuant to the Freedom of Information Act (FOIA). If you have questions, Michael Rogers, of Maintenance Policies and Programs, will monitor implementation of report recommendations and can be reached at [REDACTED]

for 
Walter O'Tormey
Attachment

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ATTACHMENT A
Engineering Responses
OIG Report DA-AR-08-DRAFT
Inventory Management – Maintenance Stockrooms

OIG Recommendation

1. Recommendation: Update policy to prevent approval authority for orders that exceed the inventory system's recommended levels from being delegated to nonsupervisory personnel.

Management agrees with this recommendation. Authorization to override the Recommended Order Quantity will be limited to EAS personnel only. Each site will provide the names of EAS personnel to the eMARS Project Office. The eMARS Project Office will verify that the employees are indeed EAS personnel and add the names to the ROQ override table. This will be completed by the end of Q4FY08.

2. Recommendation: Require each Vice President, Area Operations, to submit an inventory reduction plan if the area's spare parts on hand exceed the recommended inventory level.

Management agrees with the intent of this recommendation. A policy letter to be sent to each Vice President, Area Operations will be developed for Senior Management's approval requesting each Area develop and submit a plan to reduce their excess stock. This will be completed by end of Q1FY09.

3. Recommendation: Require material management specialist to assist maintenance managers in redistributing, recycling, and disposing of excess mail process equipment spare parts.

Management agrees with the intent of this recommendation. We will work with Supply Management to develop a comprehensive plan to provide Maintenance Managers assistance from District Material Management Specialist and Materials Service Center, Purchasing & Supply Management Specialists in our efforts to redistribute, recycle and dispose of excess parts. This will be completed in conjunction with recommendation #2 and completed by the end of Q1FY09.