July 20, 2004

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SUBJECT: Audit Report – Efforts to Prevent Accidents, Injuries, and Illnesses in the Mid-America and Salt Lake City Performance Clusters (Western Area) (Report Number HM-AR-04-010)

This report presents the results of our audit of the Mid-America and Salt Lake City Performance Clusters' efforts to prevent accidents, injuries, and illnesses in the Western Area (Project Number 03YG011LH008). Our overall objective was to determine whether the performance clusters were reducing the number of accidents, injuries, and illnesses through prevention methods. This report is the sixth in a series of 7 reports we will issue on accident prevention initiatives in 6 areas and 12 performance clusters. The seventh report will address issues with nationwide impact and will provide the results of our best practice review of safety issues.

The Mid-America and Salt Lake City Performance Clusters had implemented prevention initiatives that have the potential to become best practices in reducing accidents, injuries, and illnesses. However, we could not determine whether the prevention initiatives reduced the number of accidents, injuries, and illnesses, or whether the initiatives were implemented in a timely manner.

Although both performance clusters were accumulating and analyzing accident, injury, and illness data for prevention initiatives, the Human Resources Information Systems and the Risk Management Reporting System are antiquated and will be replaced. Finally, in all six facilities we visited in the Mid-America and Salt Lake City Performance Clusters, the reporting processes facilitated accurate reporting of accidents, injuries, and illnesses.

Further, in the Salt Lake City Performance Cluster, we noted opportunities for improvement in safety, training, and resources. We also identified an issue regarding carrier safety, and the performance cluster took corrective action.

We made two recommendations to help management in the Salt Lake City Performance Cluster improve its accident prevention programs. Management agreed with the recommendations and has initiatives completed or planned addressing the issues in this report. Management's comments and our evaluation of these comments are included in the report.

We appreciate the cooperation and courtesies provided by your staff during the audit. If you have any questions or need additional information, please contact Chris Nicoloff, Director, Human Capital, or me at (703) 248-2300.

/s/ Mary W. Demory

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Efforts to Prevent Accidents, Injuries,
  and Illnesses in the Mid-America and Salt Lake City
  Performance Clusters (Western Area)

HM-AR-04-010

TABLE OF CONTENTS

Efforts to Prevent Accidents, Injuries,
 and Illnesses in the Mid-America and Salt Lake City
 Performance Clusters (Western Area)

HM-AR-04-010

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

EXECUTIVE SUMMARY

Introduction	This report presents the results of our self-initiated audit to determine whether the Mid-America and Salt Lake City Performance Clusters, located in the Western Area, were reducing the number of accidents, injuries, and illnesses through prevention initiatives.
Results in Brief	The Mid-America and Salt Lake City Performance Clusters have implemented prevention initiatives that could become best practices in reducing accidents, injuries, and illnesses. However, we could not determine whether the prevention initiatives reduced the number of accidents, injuries, and illnesses, or whether the initiatives were implemented in a timely manner. This occurred because the measurement tools in place did not allow safety personnel to track and monitor the effectiveness of specific prevention initiatives.

Although both performance clusters were accumulating and analyzing accident, injury, and illness data for prevention initiatives, the Human Resources Information Systems and the Risk Management Reporting System are antiquated and will be replaced.

Postal Service Headquarters officials told us they were addressing this issue at the headquarters level. We will issue a summary report on the audit results for the six areas visited. In that report, we may make a recommendation to the Senior Vice President, Human Resources, regarding the data systems.

In all six facilities we visited in the Mid-America and Salt Lake City Performance Clusters, the reporting processes used within the various functional areas facilitated the accurate reporting of accidents, injuries, and illnesses.

Further, in the Salt Lake City Performance Cluster, opportunities exist for improvement in the areas of safety training and resources. We also identified an issue regarding carrier safety, and the performance cluster took corrective action.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

Summary of Recommendations	To improve the Salt Lake City Performance Cluster's safety program, we recommended the Manager, Salt Lake City District, require safety training for temporary supervisors; and fill vacant positions where appropriate or consider other alternatives, such as collateral duty assignments for existing staff.
Summary of Management's Comments	Management agreed that although accident reductions in the Mid-America and Salt Lake City Performance Clusters were realized, it was difficult to determine whether the specific safety initiatives implemented were the reason for improved performance.
	Management also agreed that the Salt Lake City Performance Cluster should require training for temporary supervisors who serve for long periods. In addition, management agreed that the Salt Lake City Performance Cluster should provide sufficient personnel and support to properly implement and administer the safety program. They stated an Ad-Hoc Safety Manager position will remain in effect until a permanent position is arranged. Management's comments, in their entirety, are included in Appendix E of this report.
Overall Evaluation of Management's Comments	Management's actions taken or planned are responsive to the recommendations and should resolve the issues identified in this report.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

INTRODUCTION

Background	With responsibility for more than 38,000 facilities, major transportation networks, and universal delivery, the Postal Service faces significant challenges in the areas of health and safety. These include making the health and safety of Postal Service employees a priority, managing the associated costs and lost productivity in operations, and responding when accidents and injuries have an unfavorable impact on the workplace. In addition, the Postal Service must address citations and monetary penalties for noncompliance with the Occupational Safety and Health Administration (OSHA) standards.

In its April 2002, Transformation Plan, the Postal Service stated that to meet its challenges and prepare for transformation, it would implement a number of strategies to "push business effectiveness and operational efficiency." One of the strategies outlined was to reduce its workers' compensation costs. According to the Office of Workers' Compensation Programs' (OWCP) chargeback[1] reports, the Postal Service workers' compensation costs have increased from $538 million to $822 million between chargeback years 1997 and 2003.[2]

The following table is a comparison of Postal Service-wide accidents[3] and OSHA injuries and illnesses[4] for fiscal years (FYs) 2002 and 2003, which shows decreases in four categories. In addition, total expenses in FY 2003 decreased significantly.

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[1] The OWCP's chargeback system is the mechanism by which the Department of Labor annually bills the cost of compensation for work-related injuries and deaths to employing agencies.

[2] The OWCP's chargeback year is July 1 through June 30.

[3] The Postal Service considers accidents as all reportable and nonreportable incidents, including unadjudicated occupational illness cases that cover certain kinds of injuries, illnesses, or damages. OSHA defines an accident as any unplanned event that results in personal injury or property damage.

[4] OSHA defines an injury or illness as an abnormal condition or disorder. Injuries include, but are not limited to, cuts, fractures, sprains, or amputations. Illnesses include both acute and chronic illnesses such as, but not limited to, skin diseases, respiratory disorders, or poisoning.

Efforts to Prevent Accidents, Injuries,
  and Illnesses in the Mid-America and Salt Lake City
  Performance Clusters (Western Area)

HM-AR-04-010

Table 1. Comparison of Postal Service-Wide Accidents and OSHA Injuries
and Illnesses, FYs 2002 through 2003

Category	FY 2002	FY 2003
Motor Vehicle Accidents	23,404	23,100
Non-Motor Vehicle Accidents	99,195	93,251
OSHA Injuries	51,630	46,317
OSHA Illnesses	6,972	5,550
Total Accident, Injury, Illness Expenses	$1,652,449,865	$1,620,024,027

Source: Postal Service Web-Enabled Enterprise Information System (WebEIS).

Postal Service Headquarters officials did not know specifically what was responsible for the reduction in accidents. They believed, however, it was the result of accident prevention initiatives.

To determine why the number of accidents, injuries, and illnesses declined, we conducted a survey of accident prevention initiatives in the Postal Service's Western New York and Baltimore Performance Clusters, located in the Northeast and Capital Metro Areas, respectively. Our results showed that accident prevention initiatives in each performance cluster were different and yielded contrasting results. We conducted this audit to determine whether similar situations existed in the Mid-America and Salt Lake City Performance Clusters. We did not audit the performance clusters' overall safety programs. Our focus was on accident prevention initiatives at the locations we visited.

Objectives, Scope, and Methodology	Our overall objective was to determine whether the Mid-America and Salt Lake City Performance Clusters were reducing the number of accidents, injuries, and illnesses through prevention initiatives. Our four subobjectives were to determine whether:

- The number of accidents and injuries was declining as a result of corrections to unsafe working conditions and practices.[5]

- Corrective actions and/or prevention initiatives were made in a timely manner.

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[5] Corrections to unsafe working conditions and practices were considered both corrective actions and prevention initiatives. The purpose of this subobjective was to determine the effectiveness of prevention initiatives.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

- Data were being accumulated and analyzed for prevention initiatives.

- Processes facilitated accurate reporting.

We discuss our scope and methodology in Appendix B.

Prior Audit Coverage   In the Mid-America and Salt Lake City Performance Clusters, we did not identify any prior audits or reviews related to the objectives of this audit.

AUDIT RESULTS

The Mid-America and Salt Lake City Performance Clusters have implemented accident prevention initiatives. We could not determine, however, whether the prevention initiatives were reducing the number of accidents, injuries, and illnesses, or whether the initiatives were implemented in a timely manner.

Although the performance clusters were accumulating and analyzing accident, injury, and illness data in two different automated systems, the systems are antiquated and will be replaced. Further, the overall reporting processes used within the various functional areas facilitated accurate reporting of accidents, injuries, and illnesses.

Finally, in the Salt Lake City Performance Cluster, opportunities exist for improvement in the areas of safety training and resources. We also identified an issue regarding carrier safety, and the performance cluster took corrective action.

Accident Prevention Initiatives

The Mid-America and Salt Lake City Performance Clusters' prevention initiatives have the potential to become best practices in reducing accidents, injuries, and illnesses. These initiatives could also help other performance clusters to enhance their safety programs. For example, the Mid-America Performance Cluster:

- Developed a dog bite policy stating that the existence of a potential dog bite danger could result in the curtailment of deliveries to a group of customers (the whole block if applicable) until the danger was removed.

- Issued "Stabilicers" to prevent slips, trips, and falls due to icy conditions. "Stabilicers" are rubber shoe covers with cleats, worn by letter carriers. Safety personnel advised that this product was effective in preventing slips, trips, and falls due to icy conditions.

The Salt Lake City Performance Cluster implemented the following prevention initiatives:

- A Driver Observation Tracking Tool to identify infractions by drivers and help the safety office target the type of training needed for employees.

- Created a binder called "Safety for All Seasons" that was given to those stations where safety staff had not visited. The binder provides uniform guidance on safety issues and contains information on accident prevention awareness projects.

Effectiveness and Timeliness of Prevention Initiatives	For FY 2002 through accounting period 12 in FY 2003, for the Salt Lake City Performance Cluster, and FYs 2002 and 2003 for the Mid-America Performance Cluster, we could not determine whether the performance clusters were reducing the number of accidents, injuries, and illnesses, through prevention initiatives, or whether prevention initiatives were implemented in a timely manner. We could not make this determination because the measurement tools in place did not allow safety personnel to:

- Track and monitor specific prevention initiatives.
- Document when initiatives were implemented.

Some categories of accidents (slips, trips, falls, and lifts) had decreased in both performance clusters; however, the reasons for the decreases could not be determined. District safety personnel told us they did not think decreases in the number of accidents were related to specific prevention initiatives. In addition, they had not documented the implementation dates.

Although both performance clusters have implemented several accident prevention initiatives, their numbers and frequency rates vary for OSHA injuries and illnesses and motor vehicle accidents. From FYs 2002 to 2003, the Mid-America and Salt Lake City OSHA injury and illness numbers, OSHA accident frequency rates, and motor vehicle accident frequency rates[6] decreased. Salt Lake

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[6] OSHA injury and illness and motor vehicle accident frequency rates are the number of accidents per 100 employees for a specific period. These rates provide measurements that make accident data comparable between large and small facilities.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

City's motor vehicle accident numbers also decreased for the same period. Mid-America's motor vehicle accident numbers, however, stayed about the same. The following table illustrates these changes.

Table 2. OSHA Injury and Illness and Motor Vehicle Accident Numbers and Frequency Rates in the Mid-America and Salt Lake City Performance Clusters for FYs 2002 and 2003

Performance Cluster	Numbers		Average Accident Rates	
	FY 2002	FY 2003	FY 2002	FY 2003
Mid-America				
OSHA Injury and Illness	598	518	5.64	5.07
Motor Vehicle	308	306	7.17	6.95
Salt Lake City				
OSHA Injury and Illness	385	301	9.47	7.59
Motor Vehicle	243	190	22.85	17.52

Source: Postal Service WebEIS.

Postal Service policy[7] stated that safety personnel are responsible for developing and monitoring a comprehensive safety and health program and analyzing accident, injury, and illness data so they can advise management on corrective actions. Policy[8] also requires installations to develop methods to identify program needs for accident prevention. In addition, policy[9] requires supervisors to implement written programs and action plans, monitor employees' safety performance, and prevent operational safety accidents.

Without implementation dates and adequate measurement tools, the Postal Service does not have reasonable assurance that prevention initiatives help the performance clusters reduce the number of accidents, injuries, and illnesses. To follow prudent business practices, Postal Service managers should evaluate whether prevention initiatives are accomplishing their goals and whether the resources expended are justified.

Headquarters officials told us they are modifying the tool kit that safety managers use to assess their safety programs. The tool kit will include trend line charts to track prevention

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[7] <u>Employee and Labor Relations Manual 17.2</u>, Section 813.31, February 2003.
[8] <u>Employee and Labor Relations Manual 17.2</u>, Section 821.32, February 2003.
[9] <u>Supervisor's Safety Handbook</u>, Handbook EL-801, Chapter 1, Section 1-1, May 2001.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

initiatives, and will also allow managers to enter the date initiatives are implemented. In a separate report, we will address the need for tracking and monitoring initiatives.[10]

In determining the effectiveness and timeliness of prevention initiatives, we noted two opportunities for improvement in the areas of training and resources.

Management's Comments	Management agreed that although accident reductions in the Mid-America and Salt Lake City Performance Clusters were realized, it was difficult to determine whether the specific safety initiatives implemented were the reasons for improved performance. They believed each cluster implemented programs based on periodic reports and queries that identified specific weaknesses. They stated, however, that unfortunately, neither cluster was able to provide dated reports or meeting minutes linking the weaknesses with the exact implementation date of an initiative and the related reduction. This shortcoming should be resolved once the clusters enter initiative starting and ending dates in their action plans in the safety toolkit.
Opportunity for Improvement – Safety Training	In the Salt Lake City Performance Cluster, temporary supervisors[11] were not receiving safety training. According to the District Safety Manager, at any given time, approximately 100 temporary supervisors are deployed in 196 customer service facilities within the cluster. He said formal training is not provided to temporary supervisors because management does not know in advance when craft employees will become temporary supervisors, so it is difficult to plan safety training for them.

Postal Service policy[12] states that all supervisors must receive safety and health training in accordance with the curriculum established by the Safety Performance Management and Employee Development office. Local offices, districts, and headquarters provide this training. Policy[13] also requires installations to develop methods to identify program needs for accident prevention.

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[10] We will issue a summary report on the audit results for the six areas visited.
[11] A temporary supervisor (also referred to as a 204B) is usually a craft employee who has been tasked to temporarily perform duties of a supervisor.
[12] Employee and Labor Relations Manual 17.2, Section 817.11, February 2003.
[13] Employee and Labor Relations Manual 17.2, Section 821.32, February 2003.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

Supervisors must implement written programs and action plans, monitor employees' safety performance, and prevent operational safety accidents.

Without the necessary training, temporary supervisors may not develop methods to identify safety program needs for accident prevention. In addition, written programs, action plans, and the monitoring of employees' safety performance may not be sufficient to prevent operational safety accidents.

Recommendation	We recommend the Manager, Salt Lake City District: 1. Require safety training for temporary supervisors.
Management's Comments	Management agreed with our recommendation that the Salt Lake City Performance Cluster require training for temporary supervisors who serve for long periods. Management stated they would fill vacant positions where appropriate and consider other alternatives such as collateral duty assignments.
Evaluation of Management's Comments	Management's actions taken or planned are responsive to the recommendation and should resolve the issues identified in this finding.
Opportunity for Improvement – Resources	Another opportunity for improvement in the Salt Lake City Performance Cluster involves the level of staffing. Specifically, the safety staff may not be sufficient to support an effective accident prevention program. This is the case because the District Safety Manager is required to perform full-time duties as the Injury Compensation Manager,[14] in addition to his safety manager duties. The safety manager stated that because of staffing and budget constraints, the performance cluster does not have a position for an Injury Compensation Manager. He told us

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[14] An Injury Compensation Manager is responsible for developing, coordinating, and monitoring activities related to the workers' compensation program throughout the performance cluster.

that as a result, he spends about 75 percent of his time performing the duties of that position.

Postal Service policy[15] states that organizations must plan budgets and provide funds that support effective and comprehensive safety and health programs, and provide for sufficient personnel and support to properly implement and administer the programs.

Because of the additional responsibilities and time needed for injury compensation duties, safety duties may not be receiving the required attention.

Recommendation	We recommend the Manager, Salt Lake City District: 2. Fill vacant positions, where appropriate, and/or consider other alternatives such as collateral duty assignments to existing staff.
Management's Comments	Management agreed with our recommendation that the Salt Lake City Performance Cluster provide sufficient personnel and support to properly implement and administer the safety program. They stated that an Ad Hoc Safety Manager position will remain in effect until a permanent position is arranged.
Evaluation of Management's Comments	Management's actions taken or planned are responsive to the recommendation and should resolve the issues identified in this finding.
Accident Reporting Systems	Both the Mid-America and Salt Lake Performance Clusters were accumulating and analyzing accident, injury, and illness data in the Human Resources Information Systems (HRIS) and the Risk Management Reporting System (RMRS). However, headquarters personnel told us these systems are antiquated and will be replaced. Safety personnel at both performance clusters told us they were either not experiencing problems with the two systems, or were able to work around them. For example, the Mid-America Performance Cluster had implemented strategies for FY 2004 to analyze accident

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[15] <u>Employee and Labor Relations Manual 17.2</u>, Section 818, February 2003.

Efforts to Prevent Accidents, Injuries,   HM-AR-04-010
  and Illnesses in the Mid-America and Salt Lake City
   Performance Clusters (Western Area)

reporting data from the HRIS and the RMRS and reduce accidents. The strategies included the development and implementation of safety action plans based on accident experience, ongoing programs to address accident repeaters, safety program/performance reviews at targeted sites, safety observation teams, a safe driver award program in every driving unit, and vehicle accident reviews.

The Salt Lake City Performance Cluster closely monitors employees as part of their accident repeater program, which focuses on employees having more than one accident in two consecutive years. When an employee is accident-free for a two-year period, the employee receives a letter of congratulations on his or her accomplishment.

Also, based on data from the HRIS and RMRS, the Salt Lake City Performance Cluster developed an Action/Intervention Plan to reduce accidents. Specifically, based on three-year averages for each high-risk accident category, the performance cluster sets a 10-percent reduction target for the high-risk categories.

Postal Service policy[16] requires the safety offices responsible for facilities where accidents occurred to enter accident report information into HRIS. Postal Service policy[17] also states that the analysis of accidents and injuries is vital to effective accident prevention programs and requires management to use reports and statistical analyses to identify and eliminate the principal causes of accidents and hazardous conditions. Postal Service policy[18] further requires each business area that manages source data to identify an individual or organization responsible for developing standards and usage rules to ensure data integrity. The policy also states that the standards and rules must ensure that data are accurate, available, usable, and consistent with the data location and other business considerations.

According to the headquarters Program Manager, Information Technology, Human Resources Portfolio, the Postal Service has developed the Injury Compensation Performance Analysis System, and a component of it will

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[16] Employee and Labor Relations Manual 17.2, Section 821.123, February 2003.
[17] Employee and Labor Relations Manual 17.2, Section 821.31, February 2003.
[18] Management Instruction 860-2003-2, Administrative Support, March 6, 2003.

replace HRIS and the RMRS. The manager also stated the system is scheduled for implementation late in calendar year 2004. We will address this issue in a separate report.

Reporting Processes

In all six facilities we visited in the Mid-America and Salt Lake City Performance Clusters, the overall reporting processes used within the various functional areas facilitated the accurate reporting of accidents, injuries, and illnesses.

We used a statistical sample to project the accuracy of the Mid-America Performance data in HRIS, and the completeness of accident report forms[19] for FY 2002 and the first 11 accounting periods of FY 2003. We projected that almost all of the information on the forms in the Mid-America Performance Cluster were contained in the system, and the forms were complete (see Appendix C).

We also used a statistical sample to review the accuracy of the Salt Lake City data in HRIS, and the completeness of the accident report forms for FY 2002 and the first 11 accounting periods of FY 2003. The sample did not support a statistical projection; however, our tests of the data indicated the data in HRIS were reasonably reliable, and the forms were complete (see Appendix D).

Postal Service policy[20] requires supervisors to fully complete accident reports by including preventive action codes[21] and descriptions of accident prevention efforts. The policy also requires managers to review each accident report for accuracy and conduct a follow-up assessment to ensure that action was taken to prevent similar occurrences. In addition, supervisors and managers are required to sign the report as proof they have reviewed it. Further, the policy[22] requires the safety officer to enter the accident report information into HRIS.

We believe the accident reporting process was accurate because supervisors and managers had received the safety

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[19] Postal Service Form 1769, Accident Report, was used to report accidents. The instructions on the form required it to be completed for all accidents, regardless of the extent of injury or amount of damage. This included all first aid injury cases, both reportable and nonreportable.

[20] Employee and Labor Relations Manual 17.2, Section 821.13, February 2003.

[21] Preventive action codes describe the action taken to eliminate or reduce the accident cause(s) and prevent similar accidents.

[22] Employee and Labor Relations Manual 17.2, Section 821.12, February 2003.

Efforts to Prevent Accidents, Injuries,
and Illnesses in the Mid-America and Salt Lake City
Performance Clusters (Western Area)

HM-AR-04-010

training required by the performance clusters and had communicated the accident reporting process to employees through safety talks and posters.

Efforts to Prevent Accidents, Injuries,
 and Illnesses in the Mid-America and Salt Lake City
 Performance Clusters (Western Area)

HM-AR-04-010

APPENDIX A. ABBREVIATIONS

FY	Fiscal Year
HRIS	Human Resources Information Systems
OSHA	Occupational Safety and Health Administration
OWCP	Office of Workers' Compensation Programs
RMRS	Risk Management Reporting System
WebEIS	Web-Enabled Enterprise Information System

APPENDIX B. SCOPE AND METHODOLOGY

Our performance cluster selections were based on the lowest and highest combined OSHA injury and illness, and accident frequency rates from FY 2002[23] through accounting period[24] 8 in FY 2003.[25] The Salt Lake City Performance Cluster average total OSHA injury and illness and average total accident frequency rates were 8.8 percent and 23.8 percent, respectively. The Mid-America average total OSHA injury and illness and accident frequency rates were 5.4 percent and 15.8 percent, respectively. The average total accident frequency rate of 15.8 percent in the Mid-America Performance Cluster meant that out of every 100 employees, an average of 15.8 had an accident for that period.

We selected three facilities at each performance cluster based on size and type (airport mail center, processing and distribution center, and main post office). The Mid-America facilities we visited were the Kansas City, the Missouri Processing and Distribution Center, the airport mail center, and the Independence, Missouri Post Office. The Salt Lake City facilities we visited were the Salt Lake City Processing and Distribution Center, the Auxiliary Service Facility, and the West Valley Branch.

To accomplish our objectives, we reviewed applicable federal laws and Postal Service and OSHA policies and procedures related to accident and injury prevention.

To verify whether the number of accidents and injuries was declining as a result of corrections to unsafe working conditions and practices, we obtained data by accident category and code (slips, trips and falls, lifting, dog bites, repetitive motion, striking against, struck by objects, and motor vehicles) for each performance cluster and facility visited. In addition, we obtained accident numbers and accident frequency rate data from the Postal Service WebEIS for FYs 2002 and 2003. We also obtained from RMRS the accident frequency rates and OSHA injury and illness rates for FY 2002, and the first eight accounting periods in FY 2003. We reviewed both WebEIS and RMRS data to determine whether downward trends indicated a reduction in accidents, injuries, and illnesses.

To determine whether corrective actions and prevention initiatives were made in a timely manner to reduce the number of accidents, injuries, and illnesses, we reviewed Postal Service policy to learn whether a national or other standard policy existed that addressed how timely unsafe working conditions and practices should be corrected. We reviewed documentation for corrective actions and prevention initiatives implemented in FYs 2002 and 2003 for the Mid-America Performance Cluster, and FY 2002 through accounting period 12 in FY 2003[26] for the Salt Lake City Performance Cluster.

To determine whether accident, injury, and illness data were accumulated and analyzed for prevention initiatives, we analyzed accidents, injuries, training documents, and workplace inspection data for sources and locations of accidents and jobs with high occurrences of accidents. We also analyzed accident and injury trends to determine whether a pattern of accidents with common causes could be identified in order to prevent future occurrences. We reviewed action plans and <u>Program Evaluation Guide</u> data that were accumulated and analyzed for prevention initiatives from FYs 2002 and 2003.

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[23] The FY 2002 period for the Postal Service began September 8, 2001, and ended September 6, 2002.
[24] An accounting period is defined as a four-week period that forms one-thirteenth of the Postal Service fiscal year.
[25] The FY 2002 period for the Postal Service began September 8, 2001, and ended September 6, 2002. The first eight accounting periods in FY 2003, began September 7, 2002, and ended April 18, 2003. The FY 2003 period for the Postal Service began September 7, 2002, and ended September 5, 2003. However, the Postal Service transitioned its financial reporting system from accounting periods to monthly reporting periods on October 1, 2003. The transition period began September 6, 2003, and ended September 30, 2003.
[26] The first 12 accounting periods for FY 2003 began September 7, 2002, and ended August 8, 2003.

To determine whether processes used within the various functional areas facilitated accurate reporting of accidents, injuries, and illnesses, we interviewed human resources, safety and health program personnel, and management at the area, performance cluster, and facility levels. We obtained information related to accident prevention such as resources, training, accident and hazard reporting, safety talks, and internal controls. In addition, we selected a statistical sample of accidents, injuries, and illnesses entered into HRIS for FY 2002 and the first 12 accounting periods in FY 2003 for the Salt Lake City Performance Cluster, and FYs 2002 and 2003 for the Mid-America Performance Cluster. We reviewed a sample of accident report forms for accuracy and completeness and reviewed a sample of accidents from HRIS to determine whether the information on the forms was entered accurately. (See Appendices C and D for a discussion of the sampling and projection methodologies used.)

This audit was conducted from May 2003 through July 2004, in accordance with generally accepted government auditing standards and included such tests of internal controls as were considered necessary under the circumstances. We discussed our conclusions and observations with appropriate management officials and included their comments, where appropriate. We believe the computer-generated data were sufficiently reliable to support the opinions, conclusions, and recommendations in this report.

APPENDIX C

STATISTICAL SAMPLING AND PROJECTIONS FOR REVIEW OF ACCIDENT REPORTING PROCESSES IN MID-AMERICA PERFORMANCE CLUSTER

Purpose of the Sampling

One of the objectives of this audit was to assess the accuracy and completeness of the accident data in the HRIS. In support of this objective, the audit team employed a stratified random sample of accidents listed in the database. The sample design allows statistical projection of the number of discrepancies between the database and the accident report forms on file. Existence of the appropriate supporting forms was also tested using the sample.

Definition of the Audit Universe

The team defined the audit universe as the Mid-America Customer Service District; the Kansas City, Missouri Processing and Distribution Center; and the post offices in Missouri.[27] The audit universe of accidents for these locations consisted of 2,195 accidents, according to the HRIS database, in FYs 2002 and 2003. The universe was obtained on-site by requesting printed HRIS data from the safety manager responsible for the accident and injury prevention program.

Sample Design and Modifications

The audit universe was stratified into six strata based on location and fiscal year. Because the file structure at each location was different, we planned separate sample designs within each stratum. We selected independent interval samples of accident report forms as described below. Random starting points were selected using the "randbetween" function in Microsoft Excel[28] to assign random numbers to the individuals on the universe listing.

Stratum	Location	FY	Population Size (Accidents)	Sample Size (Planned)	Sample Size (Actual)
1	Processing and Distribution Center	2003	290	36	42
2	Processing and Distribution Center	2002	216	27	28
3	Post Office	2003	234	29	31
4	Post Office	2002	239	30	31
5	Customer Service	2003	587	29	33
6	Customer Service	2002	629	31	32
Total			**2,195**	**182**	**197**

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[27] The Mid-America Post Office includes the airport mail center and the Independence, Missouri Post Office.
[28] Microsoft Excel is a spreadsheet program from the Microsoft Office suite of productivity tools for Windows and Macintosh.

To test the completeness and accuracy of the HRIS database, we tested nine attributes:

- Did the pay location on the accident report form agree with the database?
- Did the labor distribution code and functional operations number on the accident report form agree with the database?
- Did the activity code on the accident report form agree with the database?
- Did the type-of-accident code on the accident report form agree with the database?
- Did the accident-result code on the accident report form agree with the database?
- Did the work-location code on the accident report form agree with the database?
- Did the nature-of-injury code on the accident report form agree with the database?
- Did the injured body part code on the accident report form agree with the database?
- Did the accident number on the accident report form agree with the database?

For the completeness of the accident report forms, we tested two additional attributes:

- Was the preventive action code on the accident report form?
- Was the preventive action on the accident report form?

Statistical Projections of the Sample Data

For analysis of the sample results, we considered the interval sampling methodology to be equivalent to random sampling. As described in Chapter 7 of Elementary Survey Sampling, Scheaffer, Mendenhall, and Ott, c.1990, a systematic sample (also called an interval sample or skip-step sample) is equivalent to a random sample if the order of the items in the population is random relative to, or is unrelated to, the occurrence of the factor being investigated. We considered that to be the case in this review.

For projection of the number of errors for each attribute, we observed that the sampled items contained very low error rates. Because of the extremely low occurrence rates, we were not able to use the normal approximation to the binomial to calculate occurrence limits. Instead, we analyzed the upper occurrence limits for each sample using as a basis the cumulative binomial methodology, as used in past General Accounting Office Financial Audit Manual work, to generate the table "Statistical Sampling Results Evaluation Table for Compliance Tests." We used a 5 percent risk of overreliance (beta risk).

Results

All projections were made to the audit universe of 2,195 accidents, as described in the definition of the audit universe.

1. Did the pay location on the accident report form agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 93 pay locations on the accident report forms (4.23 percent) disagreed with the database. The point estimate is that 8 pay locations on the accident report forms (0.35 percent) disagreed with the database.

2. Did the labor distribution code and functional operations number on the accident report form agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 93 labor distribution codes and functional operations numbers on the accident report forms (4.23 percent) disagreed with the database. The point estimate is that 8 labor distribution codes and functional operations numbers on the accident report forms (0.35 percent) disagreed with the database.

3. Did the activity code on the accident report forms agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 102 activity codes on the accident report forms (4.63 percent) disagreed with the database. The point estimate is that 15 activity codes on the accident report forms (0.70 percent) disagreed with the database.

4. Did the type-of-accident code on the accident report forms agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 84 type-of-accident codes on the accident report forms (3.83 percent) disagreed with the database. The point estimate is that no type-of-accident codes on the accident report forms (0 percent) disagreed with the database.

5. Did the accident-result code on the accident report forms agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 93 accident-result codes on the accident report forms (4.22 percent) disagreed with the database. The point estimate is that 8 accident-result codes on the accident report forms (0.34 percent) disagreed with the database.

6. Did the work-location code on the accident report forms agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 93 work-location codes on the accident report forms (4.22 percent) disagreed with the database. The point estimate is that 8 work-location codes on the accident report forms (0.34 percent) disagreed with the database.

7. Did the nature-of-injury code on the accident report form agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 110 nature-of-injury codes on the accident report forms (5.01 percent) disagreed with the database. The point estimate is that 23 nature-of-injury codes on the accident report forms (1.04 percent) disagreed with the database.

8. Did the injured body part code on the accident report forms agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 110 injured body part codes on the accident report forms (5.01 percent) disagreed with the database. The point estimate is that 23 injured body part codes on the accident report forms (1.04 percent) disagreed with the database.

9. Did the accident number on the accident report forms agree with the database?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 101 accident numbers on the accident report forms (4.61 percent) disagreed with the database. The point estimate is that 15 accident numbers on the accident report forms (0.69 percent) disagreed with the database.

10. Was the preventive action code on the accident report form?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 84 accident report forms (3.83 percent) were missing the preventive action code. The point estimate is that no accident report forms (0 percent) were missing the preventive action code.

11. Was the preventive action on the accident report form?
Based on projection of the sample results, we can state with 95 percent reliance that no more than 198 accident report forms (3.83 percent) were missing the preventive action. The point estimate is that no accident report forms (0 percent) were missing the preventive action.

APPENDIX D

STATISTICAL SAMPLING FOR REVIEW OF ACCIDENT REPORTING PROCESSES IN SALT LAKE CITY PERFORMANCE CLUSTER

Purpose of the Sampling

One of the objectives of this audit was to assess the accuracy and completeness of the accident data in the HRIS. In support of this objective, the audit team employed a stratified two-stage random sample. Existence of the appropriate supporting forms was also tested using the sample.

Definition of the Audit Universe

The team defined the audit universe as the Salt Lake City Processing and Distribution Center, the Provo Processing and Distribution Center, the Auxiliary Service Facility, and the Salt Lake City Customer Service District Office. The audit universe of accidents for these locations consisted of 1,633 accidents, according to the HRIS database, for all of FY 2002 through accounting period 12 of FY 2003. The accident report forms on file were stored in folders by installation and fiscal year. The universe was obtained on-site by requesting printed HRIS data from the safety manager responsible for the accident and injury prevention program.

Sample Design and Modifications

Because the files were located at several sites and stored by fiscal year, we stratified the audit universe into eight strata based on location and fiscal year. Because the file structure at each location was different, we planned separate sample designs within each stratum. For strata one through six, we selected independent interval samples of accident reports as described below. Random starts were selected using the "randbetween" function in Microsoft Excel to assign random numbers to the individuals on the universe listing.

Stratum	Location	FY	Population Size (Accidents)	Sample Size (Actual)
1	Auxiliary Service Facility	2002	12	12
2	Auxiliary Service Facility	2003	6	6
3	Post Office	2002	72	25
4	Post Office	2003	59	25
5	Processing and Distribution Center	2002	100	25
6	Processing and Distribution Center	2003	73	24
Total			**322**	**117**

For strata seven and eight, Customer Service offices, for FYs 2002 and 2003, we selected a two-stage cluster sample, with facilities selected at the first stage and accident report forms selected at the second stage.

Stratum	Location	FY	Population Size	Sample Size
7	Customer Service	2002	782	51
8	Customer Service	2003	529	99
Total			**1,311**	**150**

As shown in both tables above, the total population size (accident report forms), or the audit universe was 1,633 (322+1,311=1,633). Additionally, the total number of accident report forms sampled was 267 (117+150=267).

Selection of individual accident report forms within a stratum was accomplished on-site by the audit team, using interval sampling defined as follows:
- Per folder:
    - If fewer than 10 accident report forms, check all forms.
    - If 10 to 20, check every other form starting with the first form.
    - If 20 to 49, check every third form starting with the second form.
    - If 50 to 99, check every fifth form starting with the fourth form.
    - If more than 99, start with the seventh form.
        - For 100 to 199, divide by 10 and use that number as the interval.
        - For 200 to 299, divide by 20 and use that number as the interval.
        - For 300 to 399, divide by 30 and use that number as the interval.

To test the completeness and accuracy of the HRIS database, we tested nine attributes:

- Did the accident number shown on the accident report form agree with the database?
- Did the pay location on the accident report form agree with the database?
- Did the labor distribution code and functional operations number on the accident report form agree with the database?
- Did the activity code on the accident report form agree with the database?
- Did the type-of-accident code on the accident report form agree with the database?
- Did the accident-result code on the accident report form agree with the database?
- Did the work-location code on the accident report form agree with the database?
- Did the nature-of-injury code on the accident report form agree with the database?
- Did the injured body part code on the accident report form agree with the database?

For the completeness of the accident report forms, we tested two additional attributes:

- Was the preventive action code on the accident report form?
- Was the preventive action on the accident report form?

Additional Analysis and Results

Although we cannot make a formal statistical projection, we believe the low error rates observed in the records reviewed supported the audit team's opinion that there is little likelihood of a major problem with the data in the files or in the database. The audit team observed the following:

- 10 of the 267 accident report forms reviewed indicated the accident numbers disagreed with the database.

- 7 of the 267 accident report forms reviewed indicated the pay locations disagreed with the database.

- 13 of the 267 accident report forms reviewed indicated the labor distribution codes and functional operations numbers disagreed with the database.

- 24 of the 267 accident report forms reviewed indicated the activity codes disagreed with the database.

- 3 of the 267 accident report forms reviewed indicated the accident type codes disagreed with the database.

- 1 of the 267 accident report forms reviewed indicated the accident-result code disagreed with the database.

- 1 of the 267 accident report forms reviewed indicated the work-location code disagreed with the database.

- 5 of the 267 accident report forms reviewed indicated the nature-of-injury codes disagreed with the database.

- 6 of the 267 accident report forms reviewed contained injured body part codes that disagreed with the database.

- 3 of the 267 accident report forms reviewed did not contain the preventive action code on the forms.

- 2 of the 267 accident report forms reviewed did not contain the preventive action on the forms.

APPENDIX E. MANAGEMENT'S COMMENTS

HUMAN RESOURCES
WESTERN AREA

UNITED STATES
POSTAL SERVICE ™

July 6, 2004

USPS, OIG
Kim H. Stroud
Director, Audit Operations
1735 N. Lynn
Arlington, VA 22209

Dear Ms. Stroud:

This letter is in reference to confirm our agreement related to changes to the Western Area Accident Prevention Audit Report.

We are in agreement that although accident reductions in the Mid-America and Salt Lake City clusters were realized, it is difficult to determine if specific safety initiatives implemented were the reason for improved performance. Our frustration with the Audit Report results from the fact that each cluster implemented programs based on periodic reports and queries that identified specific weaknesses. Unfortunately, neither cluster was able to provide time dated reports or meeting minutes linking the weakness with the exact implementation date of an initiative and the related reduction. This shortcoming should be resolved once the clusters enter initiative "start" and "end" dates in their action plans in Safety Toolkit.

We are in agreement that Salt Lake City should require training for temporary supervisors who serve for long periods of time. This includes 204Bs who do not participate in the ASP class. Salt Lake City management agreed to fill vacant positions, where appropriate, and/or consider other alternatives such as collateral duty assignments.

We are in agreement that sufficient personnel and support to properly implement and administer the safety program should be provided. As a result, the Ad-Hoc Safety Manager position will remain in effect until a permanent position can be arranged.

We appreciate the opportunity to discuss the audit findings prior to the issuance of a final report.

Patricia D. McGinty
Manager, Human Resources
Western Area

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