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SUBJECT: Audit Report – Efforts to Prevent Accidents, Injuries, and Illnesses in

the Los Angeles and Oakland Performance Clusters (Pacific Area)

(Report Number HM-AR-04-011)

This report presents the results of our self-initiated audit of the Los Angeles and Oakland Performance Clusters' (Pacific Area) efforts to prevent accidents, injuries, and illnesses (Project Number 03YG011LH002). The Postal Service combined the San Jose and Oakland Performance Clusters on December 8, 2003, and renamed it the Bay-Valley Performance Cluster. 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 fourth 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 Los Angeles and Oakland 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 prevention 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 Los Angeles and Oakland Performance Clusters, the reporting processes facilitated accurate reporting of accidents, injuries, and illnesses.

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.

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Attachment

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EXECUTIVE SUMMARY

Introduction

This report presents the results of our self-initiated audit to determine whether the Los Angeles and Oakland¹ Performance Clusters, located in the Pacific Area, were reducing the number of accidents, injuries, and illnesses through prevention initiatives.

Results in Brief

The Los Angeles and Oakland Performance Clusters had 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 prevention 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. Pacific Area management told us that as a result of the Office of Inspector General audit, they have started to track prevention initiatives for all their clusters, and were monitoring them for effectiveness.

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 Headquarter officials told us they were addressing these issues 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 recommendations to the Senior Vice President, Human Resources, regarding the measurement tools and data systems.

¹ The Postal Service combined the San Jose and Oakland Performance Clusters on December 8, 2003, and renamed it the Bay-Valley Performance Cluster.

Finally, in all six facilities we visited in the Los Angeles and Oakland Performance Clusters, the reporting processes used within the various functional areas facilitated the accurate reporting of accidents, injuries, and illnesses.

Summary of Management's Comments

Management comments were not required; however, the Human Resources Manager, Pacific Area and the Manager, Oakland District provided comments. Pacific Area management stated that regarding our statement that there were no prior audits or reviews, the safety program evaluations guides (PEG) in large offices look at various elements discussed under the Objectives, Scope, and Methodology section of the report. In addition, they stated that Pacific Area Business Reviews and local performance clusters' accident review meetings address these issues on a weekly or monthly basis. Management provided examples for our review.

The Manager, Oakland District, stated the district implemented programs/activities that they feel are best practices. Management also stated the overall number of accidents have been reduced, but it is too soon to determine if there is a direct correlation between the best practices activities and the improved performance.

Oakland management also stated they agree with Appendix D and the percentages reflected there have resulted in the district reviewing its existing reporting protocols and standard operating procedures to improve and reduce those percentages. Management's comments, in their entirety, are included in Appendix E of this report.

Overall Evaluation of Management's Comments

We reviewed the PEG, business reviews, and minutes from accident review meetings, and found that while they address many elements of a safety program, they are not audits or reviews of accident prevention initiatives. In addition, they do not address how initiatives have reduced the number of accidents. As a result, we did not view them as prior audit coverage related to our overall objective.

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 the loss of 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 <u>Transformation Plan</u>, the Postal Service stated that to meet its challenges and prepare for transformation, it will 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) chargeback¹ 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 accidents³ 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.

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

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.

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.

Table 1. Comparison of Postal Service-wide Accidents and OSHA Injuries and Illnesses, FYs 2002 and 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, and 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 the 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 Los Angeles and Oakland⁵ 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 Los Angeles and Oakland 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 were declining as a result of corrections to unsafe working conditions and practices.⁶
- Corrective actions and/or prevention initiatives were made in a timely manner.

⁵ The Postal Service combined the San Jose and Oakland Performance Clusters on December 8, 2003, and

renamed it the Bay-Valley Performance Cluster.
⁶ 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.

- 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 Los Angeles and Oakland Performance Clusters, we did not identify any prior audits or reviews related to the objectives of this audit.

Management's Comments

Management comments were not required; however, the Human Resources Manager, Pacific Area provided comments. Management stated this section of the report indicates a finding of no prior audits. Management stated the safety program evaluations guide (PEG) in large offices within the performance clusters look at various elements discussed under the Objectives, Scope, and Methodology section above. They also stated the Pacific Area Business Reviews and local performance clusters' accident review meetings, teleconferences, and business reviews address these issues on a weekly or monthly basis.

Evaluation of Management's Comments

We reviewed the PEG, business reviews, and minutes from accident review meetings, and found that while they address many elements of a safety program, they are not audits or reviews of accident prevention initiatives. In addition, they do not address how initiatives have reduced the number of accidents. As a result, we did not view them as prior audit coverage related to our overall objective.

AUDIT RESULTS

The Los Angeles and Oakland Performance Clusters had 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 prevention 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 reporting processes used within the various functional areas facilitated accurate reporting of accidents, injuries, and illnesses.

Accident Prevention Initiatives

The Los Angeles and Oakland Performance Clusters' prevention initiatives had 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 Pacific Area developed an action plan titled "Line of Sight" that identifies roles and responsibilities up and down the chain of command, which facilitates accurate reporting of accidents.
 The Pacific Area Human Resources Manager told us there is positive support for this action plan.
- The Los Angeles Performance Cluster instituted a standard operating procedure requiring that the District Manager be notified immediately (at any time) of all accidents. The District Manager's immediate awareness of accidents helped to ensure that supervisors timely prepare accident reports and conduct accident investigations.
- The Oakland Performance Cluster established a Safety Compliance Office whose function is to ensure accident reporting processes are followed. The office provided a central source for guidance and instruction to all those involved in accident reporting.

 The Oakland Performance Cluster used mapping software to identify problem sites for motor vehicle accidents by tracking accident locations and times. This software helped management make decisions that affect route and transportation changes.

Management's Comments

The Manager, Oakland District, stated the district implemented programs/activities that were both area and district driven that they believe are best practices. Management also stated the overall number of accidents has decreased, but it is too soon to determine if there is a direct correlation between the implemented programs/activities and the improved performance. They said they are confident in the current progress of their programs and the impact they are having in reducing the number of accidents.

Effectiveness and Timeliness of Prevention Initiatives

For FY 2002 through accounting period 8 in FY 2003, we could not determine whether the Los Angeles and Oakland 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 had implemented several accident prevention initiatives, their numbers and frequency rates varied for OSHA injuries and illnesses, and motor vehicle accidents. For FYs 2002 and 2003, Los Angeles' OSHA injury and illness numbers, accident

frequency rates,⁷ and motor vehicle accident frequency rates decreased. However, motor vehicle accident numbers stayed about the same for the period. Oakland's motor vehicle accident frequency rates also remained about the same, for the period. However, the cluster's OSHA injury and illness and motor vehicle numbers, and OSHA injury and illness frequency rates decreased. The following table illustrates these changes.

Table 2. OSHA Injury and Illness and Motor Vehicle Accident Numbers and Frequency Rates in the Los Angeles and Oakland Performance Clusters for FYs 2002 and 2003

Performance				
Cluster	Numbers		Average Frequency Rates	
	FY 2002 FY 2003		FY 2002	FY 2003
Los Angeles				
OSHA Injury	529	428	5.88	4.95
and Illness				
Motor Vehicle	160	159	16.15	15.98
Oakland				
OSHA Injury	830	593	9.04	6.73
and Illness				
Motor Vehicle	271	256	15.60	15.69

Source: Postal Service WebEIS.

Postal Service policy⁸ states that safety personnel were responsible for developing and monitoring a comprehensive safety and health program and analyzing accident, injury, and illness data so they could advise management on corrective actions. Policy⁹ also requires installations to develop methods to identify program needs for accident preventions. In addition, policy¹⁰ 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

⁹ Employee and Labor Relations Manual 17.2, Section 821.32, February 2003.

OSHA injury and illness rates 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.

⁸ Employee and Labor Relations Manual 17.2, Section 813.31, February 2003.

Supervisor's Safety Handbook, Handbook EL-801, Chapter 1, Section 1-1, May 2001.

Service managers should evaluate whether prevention initiatives are accomplishing their goal and whether the resources expended are justified.

The Safety Manager, Pacific Area told us that as a result of the Office of Inspector General (OIG) audit, they have started to track prevention initiatives for all their clusters, and were monitoring them for effectiveness. Management stated that prior to the OIG's audit, the area had required the clusters to track prevention initiatives; however, they did not monitor the clusters' efforts.

Headquarters officials told us the safety tool kit that safety managers use to assess their safety programs is being modified to include trend line charts to track prevention initiatives. The officials said the tool kit would also be modified to include a field for managers to enter the date initiatives are implemented. Therefore, we will address the need for tracking and monitoring initiatives in a separate report.¹¹

Accident Reporting Systems

Both the Los Angeles and Oakland Performance Clusters were accumulating and analyzing accident, injury, and illness data in the Human Resources Information System (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 either were not experiencing problems with the two systems, or were able to work around the problems.

For example, the Los Angeles Performance Cluster developed a weekly Vision Report to analyze accident data from HRIS and RMRS. The report showed current accident rates by facility and each facility's ranking in relation to other facilities within the cluster. Using accident data from HRIS and RMRS, the Oakland Performance Cluster utilized a mapping software program to analyze locations of motor vehicle accidents.

Postal Service policy¹² requires the safety offices responsible for facilities where accidents occurred to enter accident report information into HRIS. Postal Service

¹¹ We will issue a summary report on the audit results for the six areas visited.

¹² Employee and Labor Relations Manual 17.2, Section 821.123, February 2003.

policy¹³ also states that the analysis of accidents and injuries was vital to effective accident prevention programs, and required that management use reports and statistical analyses to identify and eliminate the principal causes of accidents and hazardous conditions. Postal Service policy¹⁴ further requires each business area that manages source data to identify an individual or organization that is responsible for developing standards and usage rules to ensure data integrity. The policy also states that the standards and rules must ensure that data was 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 replace HRIS and RMRS. The Manager also stated that 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 Los Angeles and Oakland Performance Clusters, the reporting processes used within the various functional areas facilitated accurate reporting of accidents, injuries, and illnesses.

We used a statistical sample to project the accuracy of the Los Angeles and Oakland Performance Clusters data in the HRIS for FY 2002 and the first 11 accounting periods of FY 2003. We projected that almost all of the information on the accident reports for both performance clusters were contained in the system (see Appendices C and D).

We also used a statistical sample to project the completeness of the Los Angeles and Oakland Performance Clusters accident report forms¹⁵ for the same period. We projected that almost all of the forms for both performance clusters, were complete (see Appendices C and D).

¹³ Employee and Labor Relations Manual 17.2, Section 821.31, February 2003.

Management Instruction, 860-2003-2 Administrative Support, March 6, 2003.

¹⁵ 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.

Postal Service policy¹⁶ requires supervisors to fully complete the accident report, by including "preventive action" codes¹⁷ 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 had reviewed it. Further, the policy¹⁸ requires that the safety officer enter the accident report information into HRIS.

We believe the accident reporting processes were accurate because supervisors and managers had received the safety training required by the performance clusters and had communicated the accident reporting processes to employees through safety talks and posters.

Management's Comments

The Manager, Oakland District, stated they agree with Appendix D. They stated the percentages reflected in items 1-3 in Appendix D resulted in the district reviewing its existing reporting protocols and standard operating procedures in order to improve and reduce those percentages. Management also stated the new processes in place have resulted in fewer discrepancies between the information on the accident report forms and the HRIS.

¹⁶ Employee and Labor Relations Manual 17.2, Section 821.13, February 2003.

¹⁷ Preventive action codes described the action taken to eliminate or reduce the accident cause(s) and prevent similar accidents

⁸ Employee and Labor Relations Manual 17.2, Section 821.12, February 2003.

APPENDIX A. ABBREVIATIONS

FY Fiscal Year

HRIS Human Resources Information Systems

OSHA Occupational Safety and Health Administration OWCP Office of Workers' Compensation Programs

PEG Program Evaluation Guide

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 rates and accident frequency rates from FY 2002¹⁹ through accounting period²⁰ 8 in FY 2003.²¹ The Los Angeles Performance Cluster average total OSHA injury and illness rates and accident frequency rates were 5.7 percent and 11.1 percent, respectively. The Oakland Performance Cluster average total OSHA injury and illness rates and accident frequency rates were 9.3 percent and 20.4 percent, respectively. The average total accident frequency rate of 11.1 percent in the Los Angeles Performance Cluster meant that out of every 100 employees, an average of 11.1 had an accident for that period.

We selected three facilities at each performance cluster based on size and type (for example, airport mail center, processing and distribution center, and main post office). The Los Angeles facilities we visited were the Los Angeles Processing and Distribution Center, the Los Angeles Airport Mail Center, and the Bicentennial Station. The Oakland facilities we visited were the Oakland Processing and Distribution Center, the San Francisco Bulk Mail Center, and the Oakland Main Post Office.

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 we 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 data from both WebEIS and RMRS 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 unsafe working conditions and practices should be corrected in a timely manner. We reviewed documentation for corrective actions and prevention initiatives implemented from FY 2002 through accounting period 11 in FY 2003. 22

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 PEG data that were accumulated and analyzed for prevention initiatives from FYs 2002 and 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

²⁰ An accounting period is defined as a four-week period that forms one-thirteenth of the Postal Service fiscal year.

¹⁹ The FY 2002 period for the Postal Service began September 8, 2001, and ended September 6, 2002.

²¹ The first eight accounting periods for 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.

²² The first 11 accounting periods for FY 2003 began September 7, 2002, and ended July 11, 2003.

Efforts to Prevent Accidents, Injuries, and Illnesses in the Los Angeles and Oakland Performance Clusters (Pacific Area)

reporting, safety talks, and internal controls. In addition, we selected two statistical samples of accidents, injuries, and illnesses entered into HRIS for FY 2002 and the first eight accounting periods in FY 2003. 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 accident reports was entered accurately. We did not analyze accident prevention forms for the purpose of determining if the stated root causes and unsafe practices identified were accurate. (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 was sufficiently reliable to support the opinions and conclusions in this report.

APPENDIX C

STATISTICAL SAMPLING AND PROJECTIONS FOR REVIEW OF ACCIDENT REPORTING PROCESSES IN LOS ANGELES 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 allowed 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 Los Angeles Customer Service District Office, the Los Angeles Processing and Distribution Center, and the Los Angeles Airport Mail Center. The audit universe of accidents for these locations consisted of 1,804 accidents, according to the HRIS database for all of FY 2002 through accounting period 11 in FY 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 expected error rate was unknown. We believed it to be less than 50 percent in general but possibly near 50 percent for at least one attribute considered. Therefore, we chose an expected error rate of 40 percent for the sample size calculation. For projection of a two-sided interval with +/- 7 percent precision at the 95 percent confidence level, our desired sample size was approximately 165 accident report forms. We allocated the planned number into six strata by year in each of the three locations: the customer service district office, the processing and distribution center, and the airport mail center. We used interval sampling to obtain the sampled forms within each stratum, with the random start for each stratum chosen using the "randbetween" function in Microsoft Excel¹ to assign random numbers to the individuals on the universe listing. (Because of the use of interval sampling, which involves use of integers, the "planned" and the "actual" numbers of items in the sample do not add to 165.)

			Population	Sample Size	Sample Size
Stratum	Location	FY	Size	(Planned)	(Actual)
1	Customer Service	2002	747	41	40
2	Customer Service	2003	556	39	42
3	Processing and Distribution				
	Center	2002	225	21	21
4	Processing and Distribution				
	Center	2003	169	23	23
5	Airport Mail Center	2002	67	22	22
6	Airport Mail Center	2003	40	15	16
Total			1,804	161	164

¹ 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 two attributes:

- Did the accident number shown on the accident report form agree with the HRIS database?
- Did the accident date shown on the accident report form agree with the HRIS database?

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

- Was the supervisor's signature on the accident report form?
- Was the safety officer's signature on the accident report form?
- Was the preventive action code 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 <u>Elementary Survey Sampling</u>, Scheaffer, Mendenhall, and Ott, c.1990, a systematic sample (also called 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 the projection of the number of errors for each attribute, we observed that the sample items for two of the attributes contained very low error rates. Because of extremely low occurrence rates, we were not able to use the normal approximation to the binomial to calculate occurrence limits for these attributes. Instead, we analyzed the upper occurrence limits for each sample using the cumulative binomial methodology, as used in past <u>General Accounting Office Financial Audit Manual</u> work to generate the table "Statistical Sampling Results Evaluation Table for Compliance Tests." As planned, we used a 5 percent risk of over-reliance (beta risk). The tabulated values for the upper occurrence limits were adjusted by appropriate finite population correction factors because the universe sizes were small.

For projection of the number of errors for attribute four with higher error rates, we were able to use the normal approximation. The sample data were analyzed using the formulas for estimation of a population proportion for a simple random sample and a stratified random sample, as described in Elementary Survey Sampling, Scheaffer, Mendenhall, and Ott, c.1990.

Results

All projections were made to the audit universe of 1,804 accidents as described in the definition of the audit universe.

- 1. Did the accident number shown on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 59 accident numbers on the accident report forms (4.25 percent) disagreed with the database. The point estimate is that no accident numbers on the accident report forms (0 percent) disagreed with the HRIS database.
- 2. Did the accident date shown on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 59 accident dates on the accident report forms (4.25 percent) disagreed with the database. The point estimate is that no accident date on the accident report forms (0 percent) disagreed with the HRIS database.

3. Was the supervisor's signature on the accident report form?

Based on projection of the sample results, we can state with 95 percent reliance that no more than 103 accident report forms (7.37 percent) lacked the supervisor's signature. The point estimate is that 33 accident report forms (2.35 percent) did not contain the supervisor's signature.

4. Was the safety officer's signature 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 (6.0 percent) were missing the safety officer's signature. The point estimate is that 16 accident report forms (1.17 percent) were missing the safety officer's signature.

5. Was the preventive action code on the accident report forms?

Based on projection of the sample results, we can state with 95 percent reliance that no more than 131 of the accident report forms (9.37 percent) lacked the preventive action code. The point estimate is that 53 accident report forms (3.78 percent) lacked the preventive action code.

APPENDIX D

STATISTICAL SAMPLING AND PROJECTIONS FOR REVIEW OF ACCIDENT REPORTING PROCESSES IN OAKLAND 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. The sample design allowed 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 Oakland Customer Service District Office, the Oakland Processing and Distribution Center, and the San Francisco Bulk Mail Center. The universe of accidents for these locations consisted of 2,455 accidents, according to the HRIS database, for all of FY 2002 through accounting period 11 of FY 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 expected error rate was unknown. We believed it to be less than 50 percent in general but possibly near 50 percent for at least one attribute considered. Therefore, we chose an expected error rate of 40 percent for the sample size calculation. For projection of a two-sided interval with +/- 7 percent precision at the 95 percent confidence level, our desired sample size was approximately 180 accidents. We allocated these into six strata by year in each of the three locations: the customer service district office, the processing and distribution center, and the bulk mail center. We used interval sampling to obtain the desired number of forms within each stratum, as shown in the table below, with the random start for each stratum chosen using the "randbetween" function in Microsoft Excel. (Because of the use of interval sampling, which involves use of integers, only the "planned" number of items in the sample adds to 180.)

Stratum	Location	FY	Population Size	Sample Size (Planned)	Sample Size (Actual)
1	Customer Service	2002	869	34	30
2	Customer Service	2003	724	33	33
3	Processing and Distribution Center	2002	356	29	27
4	Processing and Distribution Center	2003	230	31	31
5	Bulk Mail Center	2002	165	26	26
6	Bulk Mail Center	2003	111	27	26
Total			2,455	180	173

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

- Did the accident cause shown on the accident report form agree with the HRIS database?
- Did the pay location on the accident report form agree with the HRIS database?
- Did the labor distribution code and Functional Operations Number on the accident report form agree with the HRIS database?
- Did the activity code on the accident report form agree with the HRIS database?
- Did the type-of-accident code on the accident report form agree with the HRIS database?
- Did the accident-result code on the accident report form agree with the HRIS database?
- Did the work-location code on the accident report form agree with the HRIS database?
- Did the nature-of-injury code on the accident report form agree with the HRIS database?
- Did the injured body part code on the accident report form agree with the HRIS 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 interval sample or skip-step sample) is equivalent to a random sample whether 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 stratum using as a basis the cumulative binomial methodology, as used in past <u>General Accounting Office Financial Audit Manual</u> work to generate the table "Statistical Sampling Results Evaluation Table for Compliance Tests." We used a 5 percent risk of over-reliance (beta risk). In all cases, we achieved an uncertainty interval equal to or better than seven percent (magnitude of achieved uncertainty interval ranged from 4.66 percent to 6.8 percent). We also considered the subpopulation concept discussed in Chapter 11 of <u>Elementary Survey Sampling</u>, Scheaffer, Mendenhall, and Ott, c.1990, to adjust for the sampled items found to be out of the time scope of the audit.

Results

All projections were made to the audit universe of 2,455 accidents as described in the definition of the audit universe.

1. Did the accident cause shown on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 214 causes on the accident report forms (6.46 percent) disagreed with the HRIS database. The point estimate is that 45 causes on the accident report forms (1.37 percent) disagreed.

2. Did the pay location on the accident report form agree with the HRIS database?

Based on projection of the sample results, we can state with 95 percent reliance that no more than 443 pay locations (13.38 percent) disagreed. The point estimate is that 234 records (7.07 percent) disagreed.

3. Did the labor distribution code and functional operations number on the accident report form agree with the HRIS database?

Based on projection of the sample results, we can state with 95 percent reliance that no more than 519 labor distribution codes and functional operations numbers (15.68 percent) disagreed. The point estimate is that 293 labor distribution codes and functional operations numbers (8.84 percent) disagreed.

- **4.** Did the activity code on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 203 activity codes (6.14 percent) disagreed. The point estimate is that 46 activity codes (1.39 percent) disagreed.
- **5.** Did the type-of-accident code on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 288 type-of-accident codes (8.72 percent) disagreed. The point estimate is that 99 type-of-accident codes (2.99 percent) disagreed.
- **6.** Did the accident-result code on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 231 accident-result codes (6.99 percent) disagreed. The point estimate is that 57 accident-result codes (1.73 percent) disagreed.
- **7.** Did the work-location code on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 162 work-location codes (4.91 percent) disagreed. The point estimate is that eight work-location codes (0.25 percent) disagreed.
- **8.** Did the nature-of-injury code on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 228 nature-of-injury codes (6.88 percent) disagreed. The point estimate is that 53 nature-of-injury codes (1.61 percent) disagreed.
- **9.** Did the injured body part code on the accident report form agree with the HRIS database? Based on projection of the sample results, we can state with 95 percent reliance that no more than 215 injured body part codes (6.48 percent) disagreed. The point estimate is that 41 descriptions of the body part injured (1.24 percent) disagreed.
- 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 178 accident reports (5.37 percent) were missing the preventive action code. The point estimate is that 22 accident reports (0.64 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 314 accident reports (9.45 percent) were missing the preventive action. The point estimate is that 135 accident reports (4.07 percent) were missing the preventive action.

APPENDIX E. MANAGEMENT'S COMMENTS

DISTRICT MANAGER
BAY-VALLEY CUSTOMER SERVICE AND SALES



May 26, 2004

MARY W. DEMORY OIG DEPUTY ASSISTANT INSPECTOR GENERAL

SUBJECT: Program Audited/Reviewed, Report # HM-AR-04-Draft

This letter is in response to your transmittal of Draft Audit Report dated May 4, 2004. We are in agreement with attached Appendix D. The percentages reflected in items 1-3 in Appendix D resulted in us reviewing our existing reporting protocols and SOPs in order to improve and reduce those percentages. Therefore, the new processes in place have resulted in fewer discrepancies between the information on the PS Form 1769s and HRIS.

Prior to the audit we implemented programs/activities that were both Area and District driven that we feel are best practices. Some of these activities were shared during the audit. The referenced programs include the Bay-Valley Maximum Safety Program, Ergonomic Risk Reduction Program, and the Line of Sight Program. Our overall number of accidents has reduced, but it is too soon to determine if there is a direct correlation between those activities and the improved performance. We feel confident with the current progress of our programs and the impact they are having in reducing our accidents.

If I can be of further assistance to you or your staff, please do not hesitate to contact Virginia Glover, Manager Human Resources at (510) 874-8510 or Ross Lewis, Manager Safety and Health at (510) 874-8399.

Winton A. Burnett District Manager

cc: Kim Stroud, OIG Director Maria Madocks, OIG Analyst Al Iniquez, VP Pacific Area

Virginia Glover, Mgr Human Resources

Bay-Valley Plant Managers

1675 7th Street, Room 307 OAKLAND, CA 94615-9987 (510) 874-8222 FAX: (510) 874-8301 PACIFIC AREA OFFICE HUMAN RESOURCES



July 1, 2004

Mary W. Demory Deputy Assistant Inspector General Operations and Human Capital Office of the Inspector General

Subject:

Pacific Area Response – Draft Audit Report Los Angeles and Oakland Performance Clusters (Report Number HM-AR-04-

DRAFT) Revised Comments

On several occasions recently, my staff has discussed the above referenced draft audit report with you and your staff. Following our discussion with Sam Pulcrano, we have revised our comments and concerns:

- Page 3 Prior Audit Coverage indicates a finding of no "prior audits or reviews related to the objectives of this audit."
 - Safety Program Evaluations (PEG) in large offices within the Performance Clusters essentially do look at the various elements itemized under "objectives, scope, methodology" on page 2 and PEG scores are established based on the findings.
 - Pacific Area Business Reviews and local Performance Cluster accident review meetings, telecoms, business reviews address these issues on a weekly or monthly basis.
 - o Examples are included.

I appreciate the opportunity to provide input at the draft stage of the report. If you have any questions on the above comments, please contact Cathey Sinai, Safety Manager, Pacific Area (661-775-6707) or email cathey.e.sinai@usps.gov.

Manager, Human Resources

cc: Manager Human Resources

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