Office of the Inspector General

Washington Metropolitan Area Transit Authority

Evaluation of WMATA's Safety Measurement System

OIG 17-05
December 29, 2016

Washington Metropolitan Area Transit Authority
WASHINGTON, D.C. 20001

OFFICE OF
INSPECTOR GENERAL

MEMORANDUM:

FROM: OIG – Helen Lew **/s/**   DATE: December 29, 2016

TO: GMGR – Paul Wiedefeld

SUBJECT: Evaluation of WMATA's Safety Measurement System (OIG 17-05)

This Final Report, entitled *Evaluation of WMATA's Safety Measurement System* (SMS), presents the results of our evaluation. The objective of the evaluation was to determine whether WMATA's SMS is producing results consistent with the system's goals, objectives and expectations. Following an exit conference on September 1, 2016 and the issuance of a Draft Report, WMATA staff provided written comments. WMATA staff concurred with the overall OIG report.

We appreciate the cooperation extended to us by your staff during the evaluation. If you have any questions or comments about our report, please contact me on (202) 962-███ or Stephen Dingbaum, Assistant Inspector General for Audit, on (202) 962-███.

Attachment

cc: SAFE - P. Lavin
     COUN - P. Lee
     COO   - J. Leader

Evaluation of WMATA's Safety Measurement System (SMS)

What We Found

WMATA has made progress in implementing the SMS for reporting and investigating incidents and accidents, and is continuing to enhance the system. However, improvements are needed in SMS. Specifically incident and accident data is not always entered into SMS in a timely manner, investigations are not always completed timely, and some workers' compensation data is not in the SMS Return to Work (RTW) Module.

Failure to meet the timeliness requirement for reporting incidents and accidents in SMS delays corrective actions. Failure to include all incidents and accidents in SMS may delay WMATA from: promptly correcting Occupational Safety and Health Administration (OSHA) codes; reducing the number of on-the-job injuries suffered by employees, and ensuring a commensurate drop in workers' compensation claims. Additionally, without timely information in monthly, quarterly, and annual reports, management's ability to make informed decisions may be compromised. This information is contained in their information systems, but the information must be extensively manipulated to produce useable reports. This is inefficient, especially when SMS can be easily configured to produce the reports.

This report makes recommendations to improve the integrity of the SMS, and facilitate investigation of incidents and accidents by WMATA departments.

Management's Response

SAFE fully concurred with the findings and recommendations in this report and provided a list of specific actions being taken to correct the issues noted in the report. Corrective actions should be completed in calendar year 2017.

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ABBREVIATIONS AND ACRONYMS

ABBREVIATION	DESCRIPTION
ACCS	Department of Access Services
APPS	Applications Development & Operations
BOCC	Bus Operations Communication Center
BUS	Department of Bus Services
BOARD	Board of Directors
CFO	Chief Financial Officer
COO	Office of Chief Operating Officer
COUN	General Counsel
CPO	Office of Performance
CSO	Chief Safety Officer
FTA	Federal Transit Administration
FY	Fiscal Year
GM/CEO	General Manager/Chief Executive Officer
GMGR	General Manager
MTPD	Metropolitan Transit Police Department
OIG	Office of Inspector General
OSHA	Occupational Safety & Health Administration
P/I	Policy/Instruction
ROCC	Office of Rail Operations Central Control
RTRA	Office of Rail Transportation
RTW	Return To Work
SAFE	Department of System Safety & Environmental Management
SMI	Safety Management Inspection
SMS	Safety Measurement System
TIMS	Transit Infrastructure Maintenance Systems
WMATA	Washington Metropolitan Area Transit Authority

BACKGROUND

The Safety Measurement System (SMS) is designed to provide a central repository for all data connected with incidents[1] and accidents[2] that result in employee or customer injuries. SMS consists of applications organized into the following Modules: Safety Hotline, Safety On-Call, Hazard Management, Risk Management, Fatigue Risk Management, the Environmental Management and Industrial Hygiene, Incidents and Accidents and Return to Work (RTW). For the purpose of this evaluation, we limited our review to WMATA's SMS Incidents and Accidents and Return to Work Modules.

The Incidents and Accident Module creates an end-to-end view of incident and accident histories. The data is used to facilitate the:

- analysis of incidents and accidents;
- evaluation of root causes; and
- identification of hazards and develop corrective action plans.

Incident and accident data is also used to report corporate performance measures about (a) employee injury rates and (b) customer injury rates to management in monthly Executive Safety committee meetings and quarterly Vital Signs Reports. Vital Signs Reports are prepared quarterly and annually for the Board of Directors (Board) and the public.

The RTW Module consists of two applications (At-Risk Management and Transitional Duty) used as a management system for ensuring that Metro safely, fairly, and consistently provides productive work to employees who are legally and medically able to return from injury, illness, or disability.

The At-Risk Management application consists of automated tools that identify individuals whose frequency of incidents indicates a trend that may put the employee or others at risk for injuries. Additionally, it notifies appropriate personnel when an employee has reached the threshold, schedules "At-Risk" review meetings, and manages an action plan devised at the review meetings until closure.

The Transitional Duty application consists of automated tools for supporting medically low-risk, injured employees return to full duty, place occupationally-injured employees in temporary assignments and track employees while they are in the Transitional Duty program.

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[1] An unforeseen event or occurrence, which may or may not result in injury or property damage.
[2] Any unplanned or unexpected event that results in injury, and/or property damage.

SMS data comes from manual input and through computer interface with other computer programs including:

- PeopleSoft (personnel related data)
- Orbital (bus and rail operational center information)
- MAXIMO (asset management information such as model, make, year, location)
- Business Process Manager (standard daily reports and investigations employees have rights to access)

The Department of Safety and Environmental Management (SAFE) administers the SMS database through the Office of Occupational Safety and Health. From July 1, 2014 through December 31, 2015, a total of 16,853 incidents/accidents were recorded in SMS. During the same period, the Workers' Compensation database had 1,350 claims with total expenses of $5.9 million. In the second finding we expanded the scope an additional six months to June 30, 2016.

Prior Reviews

On June 17, 2015, the Federal Transit Administration (FTA) issued two safety related reports: *WMATA's Safety Management Inspection* (SMI) and the *Safety Management Systems Gap Analysis Reports*. FTA's SMI report identified organizational deficiencies and operational concerns that limited WMATA's effectiveness in balancing safety-critical operations and maintenance activities with the demand for passenger service. As a result, FTA issued Safety Directive 15-1, which identified 91 corrective actions to be completed by WMATA.

The *Safety Management Systems Gap Analysis* report did not contain any findings or required actions by WMATA.

EVALUATION OBJECTIVE AND RESULTS

Evaluation Objective

The objective of the evaluation was to determine whether WMATA's SMS is producing results consistent with the system's goals, objectives and expectations.

Evaluation Results

WMATA has made progress in implementing the SMS for reporting and investigating incidents and accidents, and is continuing to enhance the system. However, improvements are needed in SMS. Specifically, incident and accident data is not always entered into SMS in a timely manner; investigations are not always completed timely; and some workers' compensation data is not in the SMS RTW Module.

Failure to meet the timeliness requirement for reporting incidents and accidents in SMS delays corrective actions needed to prevent future similar occurrences. Failure to include all accidents in SMS may delay WMATA from: promptly correcting OSHA codes, reducing the number of on-the-job injuries suffered by employees, and ensuring a commensurate drop in workers' compensation claims. Additionally, without timely information in monthly, quarterly, and annual reports, management's ability to make informed decisions may be compromised. This information is contained in their information systems, but the information must be extensively manipulated to produce useable reports. This is inefficient, especially when SMS can be easily configured to produce the reports.

FINDINGS AND RECOMMENDATIONS

Finding 1 - Some Departments are not Entering Data into SMS or Completing Investigations in a Timely Manner (Risk - Medium)[3]

Timeliness requirements are not consistently met for reporting incidents and accidents in SMS. While incidents and accidents are generally recorded within the 24-hour time requirement, more than 66 percent of the fact finding data and 89 percent of the investigative data for Level 2, Level 3 and Level 4[4] were late. This occurred because some WMATA departments were not following SMS procedures, and SMS training does not emphasize the timeliness requirements. Failure to meet the timeliness requirement for reporting incidents and accidents in SMS (1) will delay corrective actions needed to prevent similar occurrences in the future, and (2) may affect management's ability to make informed decisions and evaluate WMATA's performance and associated risks.

What Is Required

WMATA's Policy/Instruction (P/I 10.4/0), Incident and Accident Investigation Policy; Section 4.03 Responsibilities: Executive officers, managing directors, directors, managers and supervisors are responsible for (d) ensuring that Level 2 (if delegated by SAFE), Level 3 and Level 4 investigations are performed by appropriate personnel; and (e) ensuring that investigation related documents are entered into SMS Incident Investigation Module by the responsible and qualified employee, supervisor or manager.

WMATA's Policy/Instruction (P/I 10.4/0), Incident and Accident Investigation Policy; Section 5.08 states "all employees involved in, witnessing, or informed of an accident or incident on the Metrorail and Metrobus systems or in Authority facilities or vehicles, shall inform the Operations Control Center (OCC), their supervisor, Metro Transit Police Central Communications, Maintenance Operations Control (MOC), and/or other appropriate authority as soon as possible, and shall file a written report. Rail Operations Control Center (ROCC), Bus Operations Communication Center (BOCC), MOC and Metro Transit Police Central Communications are required to enter all accident and incident data into SMS."
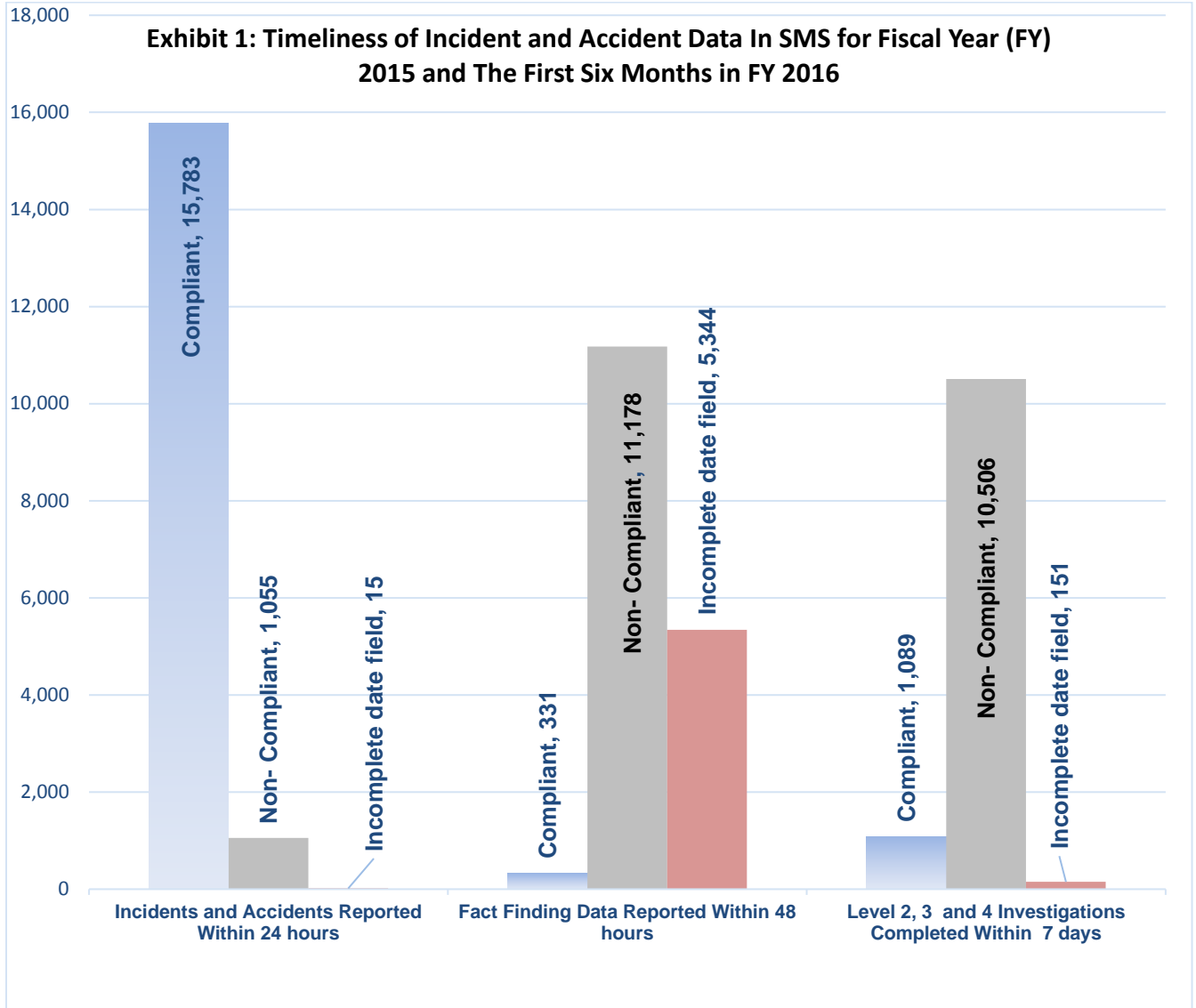
WMATA's Policy/Instruction (P/I 10.4/0), Incident and Accident Investigation Policy; Section 5.18 Safety Measurement System states "the responsible investigator, supervisor and manager, who have been trained on the Accident/Incident Investigation Module of SMS, shall ensure that all accident and incident data, investigation information, photographs and videos, and related documents are entered into SMS. The accident or incident must be entered in SMS within 24 hours of the occurrence of the accident or incident. Fact finding data must be entered within 48 hours of the occurrence of the incident or accident. Level 2, Level 3 and Level 4 investigations must be completed in seven days from the occurrence of the accident provided all necessary investigatory evidence is available." See Appendix B for a definition of Levels 1, 2, 3, 4, and 5.

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[3]Findings are rated as medium or low risk, and require management corrective actions to strengthen internal processes and provide for more effective and efficient operations.

[4]The definition of the various levels of investigation can be found in Appendix B.

What We Found

As can be seen in the following exhibit, incidents and accidents are generally reported within the 24 hour requirement. However, fact finding data and Level 2, 3 and 4 investigations were not conducted within specified time requirements.

Exhibit 1: Timeliness of Incident and Accident Data In SMS for Fiscal Year (FY) 2015 and The First Six Months in FY 2016

- Incidents and Accidents Reported Within 24 hours: Compliant, 15,783; Non-Compliant, 1,055; Incomplete date field, 15
- Fact Finding Data Reported Within 48 hours: Compliant, 331; Non-Compliant, 11,178; Incomplete date field, 5,344
- Level 2, 3 and 4 Investigations Completed Within 7 days: Compliant, 1,089; Non-Compliant, 10,506; Incomplete date field, 151

The 24 Hour Requirement Was Generally Met

There were 16,853 incidents and accidents reported in SMS during FY 2015 and the first two quarters of FY 2016. We found 15,783 (about 94 percent)[5] of incidents and accidents were reported in SMS within 24 hours during the 18 month period. Of the 1,055 incidents and accidents reported after 24 hours:

- 1,040 (99 percent) were entered into SMS between 2 to 60 days;
- 9 (1 percent) were entered into SMS 61 to 180 days; and
- 6 (1 percent) were entered into SMS 181 days or more after
  the incident and accident occurred.

The top four departments that reported incidents and accidents after 24 hours were: Department of Access Services (ACCS) (368), Office of Rail Transportation (RTRA) (346), Department of Bus Services (BUS) (186), and Transit Infrastructure Maintenance Systems (TIMS) (84).

Fact Finding Data Was Not Always Entered Into SMS Within 48 Hours

There were 16,853 incidents and accidents reported in SMS during FY 2015 and the first 6 months of FY 2016. We found 11,178 (about 66 percent) of the incidents and accidents reported were entered into SMS after 48 hours:

- 3,664 (33 percent) were entered into SMS 3 to 60 days;
- 7,435 (67 percent) were entered into SMS 61 to 180 days; and
- 79 (1 percent) were entered into SMS 181 days or more after
  the incident and accident occurred.

The top four departments that did not enter fact finding data within 48 hours were BUS (3,717) SAFE (2,606), RTRA (2,249), and ACCS (1,937).

In addition, the date field in the SMS data base was incomplete for the remaining 5,344 (32 percent) reported incidents and accidents, consequently it is not possible to determine if fact finding was completed within the 48-hour requirement.

The top four departments with no fact finding dates were BUS (2,089), SAFE (1,914), ACCS (577), and RTRA (551). Once all the fact finding data and investigation data are entered into SMS, the user is responsible for clicking on the tab to complete the task in SMS. When this step is completed, the fact finding and investigation dates and time are generated in SMS. However, most users are not completing this step in SMS.

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[5]Percentages were rounded to whole numbers; therefore, the total percentages might not equal 100 percent.

Level 2, Level 3 and Level 4 Investigations Were Not Always Completed In Seven Days

There were 11,746 Level 2, 3 and 4 investigations reported during the evaluation period. We found 10,506 (about 89 percent) of the Level 2, 3 and 4 investigations were not completed in SMS within seven days from the occurrence of the incident or accident, after all necessary investigatory evidence was available. Of the 10,506 investigations that were not completed in seven days:

- 2,173 (21 percent) were entered into SMS 8 to 60 days;
- 8,273 (79 percent) were entered into SMS 61 to 180 days; and
- 60 (1 percent) were entered into SMS 181 or more days from the occurrence of the incident and accident.

The top four departments that did not close investigations within seven days were BUS (3,778), SAFE (2,138), ACCS (1,910), and RTRA (1,889).

In addition, the date field in the SMS was not populated in the remaining 151 (1 percent) incomplete investigations because they remained open. The top three departments were SAFE (76), RTRA (36), and TIMS (16)

Why This Occurred

According to SAFE management, the lack of timely reporting was caused by some WMATA departments not following SMS procedures. In addition, OIG auditors observed the training does not emphasize the importance of timely reporting. In the case of some investigative data, a Rail Services official did not know why investigations were not completed timely.

At a post-exit conference meeting, SAFE officials stated that the criteria used to assess timeliness will be changed and the Incident and Accident Investigation Policy will be updated.

Departments not using SMS
Some WMATA departments do not follow procedures to use SMS for reporting incidents and accidents, completing fact finding data and investigating level 2, level 3 and level 4 incidents and accidents investigations. In Rail Services, station managers are required to contact ROCC if there is an incident or accident at their station. ROCC makes the initial entry, reporting the incident obtained from station managers into MAXIMO,[6] which has its own incident management system. Safety specific incidents reported in MAXIMO are uploaded daily into SMS through a computer interface.

Managers and supervisors designated by their departments are required to conduct investigations and enter all incident and accident data into SMS. However, this is not always done.

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[6]MAXIMO is the software used to provide information about WMATA owned assets, e.g., the model, make, year and location.

The Assistant General Manager, Rail Services, stated he did not know why some departments in Rail Services did not report fact finding data within the 48 hour requirement and why Level 2, Level 3 and Level 4 investigations were not completed within the seven day requirement.

Training

The Safety Measurement System Software training course, which all employees are required to attend before they are granted access to use SMS, does not include a section on the timely reporting requirement. According to the training instructor, when SMS was first implemented, the timeliness requirement was emphasized, however, the current SMS training focuses only on data entry. Additionally, the instructor stated SAFE offers the Incident and Injury Investigation training which focuses on fact gathering and investigations including timeliness requirements for incidents and accidents. However, the SAFE training is not mandatory for all SMS users.

Why This Is Important

Failure to meet the timeliness requirement for reporting incidents and accidents in SMS delays corrective actions needed to prevent similar occurrences in the future. Additionally, timely information (including the unknown data referenced in Exhibit 1) about incidents and accidents will not be included in monthly, quarterly, and annual reports provided to management, the Board and the public. This may impact management's ability to make informed decisions and evaluate WMATA's performance in achieving key objectives and addressing risks.

This information is contained in their information systems, but the information must be extensively manipulated to produce useable reports. This is inefficient, especially when SMS can be easily configured to produce the reports.

Recommendations:

We recommend that the GM/CEO:

1. Develop controls to ensure that personnel at all levels of the organization comply with WMATA policies and procedures and applicable federal regulations and directives to timely report incidents and accidents in SMS, and conduct incident and accident investigations. (Action: Chief Safety Officer) (Risk - Medium)

2. Revise the SMS basic training course offered to employees to include the timeliness requirement in the curriculum. (Action: Chief Safety Officer) (Risk - Low)

Finding 2 - SMS Return to Work Module Does Not Contain All Workers' Compensation Data (Risk - Low)

SMS RTW Module does not contain 274 workers' compensation claims. This condition occurred because all the workers' compensation data was not requested to be included in SMS. As a result, in these 274 instances, management may be hampered in its ability to promptly correct OSHA codes; reduce the number of on-the-job injuries suffered by employees, and ensure a commensurate drop in workers' compensation claims.

Additionally, management's ability to make informed decisions may be compromised without a fully implemented SMS. SMS does not provide the information about accidents that are included in monthly, quarterly, and annual reports (including Vital Signs Reports) provided to management, the Board and the public. This could also impact management's ability to make informed decisions and evaluate WMATA's performance in achieving key objectives and addressing risks.
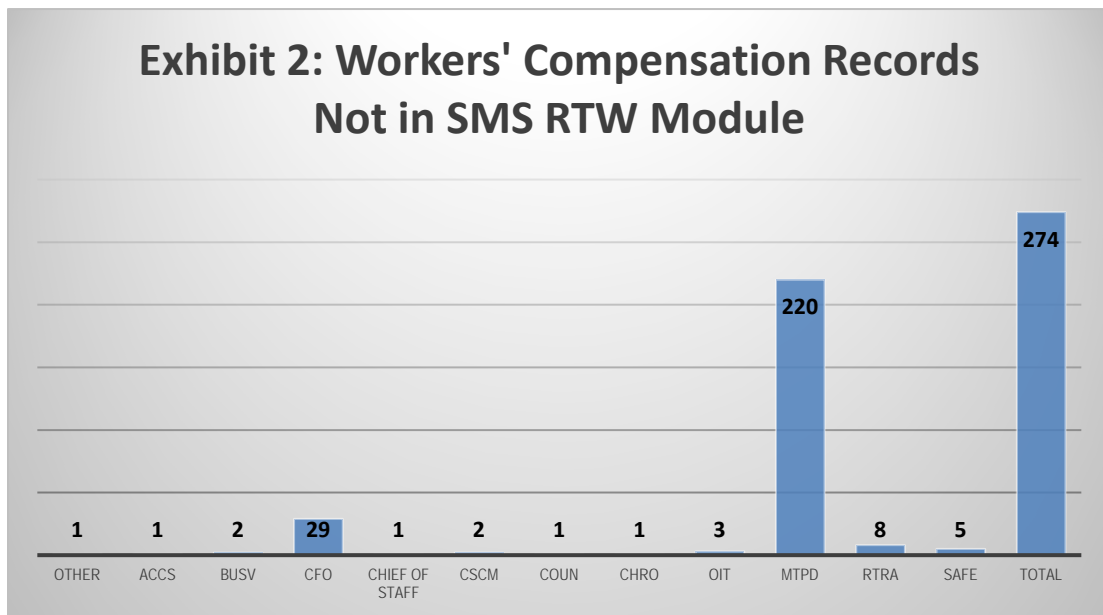
What Is Required

WMATA's Policy/Instruction (P/I 10.4/0), Incident and Accident Investigation Policy; Section 5.08 states all employees involved in, witnessing, or informed of an accident or incident on the Metrorail and Metrobus systems or in Authority facilities or vehicles, shall inform the Operations Control Center, their supervisor, Metro Transit Police Central Communications, Maintenance Operations Control (MOC), and /or other appropriate authority as soon as possible, and shall file a written report. ROCC, Bus Operations Communication Center (BOCC), MOC and Metro Transit Police Central Communications are required to enter all accident and incident data into SMS.

WMATA's RTW program located in the Office of Workforce Availability, includes Transitional Duty Placement, which places employees in light duty positions while recovering from their injury. Operating Administrative Procedure 500-24 is the guidance used to administer the program.

What We Found

The SMS RTW Module does not contain all workers' compensation data. A comparison of the SMS RTW Module to the Workers' Compensation database showed a difference of 274 claims, see Exhibit 2.

Exhibit 2: Workers' Compensation Records Not in SMS RTW Module

OTHER	ACCS	BUSV	CFO	CHIEF OF STAFF	CSCM	COUN	CHRO	OIT	MTPD	RTRA	SAFE	TOTAL
1	1	2	29	1	2	1	1	3	220	8	5	274

Why This Occurred

This condition occurred because all the workers' compensation data was not requested to be included in the SMS RTW Module.

- The Workers' Compensation Information Technology specialist stated he transmitted [the data requested] to SMS for all employees whose work unit participated in the absenteeism program, which was established to monitor employee absenteeism in RAIL Services and BUS Services. The IT specialist indicated Metro Transit Police Department and Chief Financial Officer (CFO) do not participate in the absenteeism program. Therefore, the Metro Transit Police Department (MTPD) and CFO data is not included in the data transmitted to SMS.

In another situation, a RTW official requested specific information be included in SMS RTW Module (i.e., WMATA employees with two or more claims within a 24 month period); but was provided additional data involving employees with only one claim. However, this data only amounted to about 80 percent of what was required for SMS.

An IT manager stated the SMS RTW Module and the Workers' Compensation database could be modified to create an interface that would download all injury information from the Workers' Compensation database to SMS.

Why This Is Important

Failure to include all accidents in SMS may delay WMATA from:

- promptly retrieving and correcting OSHA codes;[7]
- reducing the number of on-the-job injuries suffered by employees; and
- ensuring a commensurate drop in workers' compensation claims.

This information is contained in their information systems, but the information must be extensively manipulated to produce useable reports. This is inefficient, especially when SMS can be easily configured to produce the reports.

Recommendation:

We recommend the GM/CEO:

3. Develop systems integration data capability to ensure all data can be efficiently and effectively transmitted from the Workers' Compensation database to SMS. (Action: Chief Safety Officer) (Risk - Low)

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[7]We found no incidents in which OSHA code was not corrected during the evaluation.

CONSOLIDATED LIST OF RECOMMENDATIONS

1. Develop controls to ensure that personnel at all levels of the organization comply with WMATA policies and procedures and applicable federal regulations and directives to timely report incidents and accidents, and conduct incident and accident investigations in WMATA's SMS. (Action: Chief Safety Officer) (Risk - Medium[8]).

2. Revise the SMS basic training course offered to employees to include the timeliness requirement in the curriculum. (Action: Chief Safety Officer) (Risk - Low)

3. Develop systems integration data capability to ensure all data can be efficiently and effectively transmitted from the Workers' Compensation Database to SMS. (Action: Chief Safety Officer) (Risk – Low[9])

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[8]Medium - Exception may be material to accomplishing organization objectives. Corrective action is required and the results are reported to management quarterly. Resolution would help avoid negative impact on the unit's assets, financial information, or ability to comply with important laws, policies, or procedures.

[9]Low - Exception has a minor impact on the accomplishment of organization objectives but may result in inefficient operations. Resolution would help improve controls and avoid inefficient operations within the unit.

SUMMARY OF MANAGEMENT'S RESPONSE

WMATA provided written comments to this report on December 28, 2016 (see Appendix C). SAFE fully concurred with our findings and recommendations and provided a list of specific actions being taken to correct the issues noted in the report. Corrective actions should be completed in calendar year 2017.

The OIG considers management's comments responsive to the recommendations in the report and corrective actions taken or planned should resolve the issues identified in the report.

OBJECTIVE, SCOPE, AND METHODOLOGY

Objective

The objective was to determine whether WMATA's SMS is producing results consistent with the system's goals, objectives and expectations.

Scope

The scope of work covered July 1, 2014 through December 31, 2015. All of WMATA's departments required to report incidents and accidents were included in the scope of the evaluation. We limited our review to WMATA's SMS Incidents and Accidents and the RTW Modules.

Methodology

To accomplish our objective, we: (1) reviewed WMATA's written policies and procedures for reporting and investigating incidents and accidents captured in SMS. Specifically, WMATA's Incident and Accident investigations, P/I 10.4/0 effective November 2011, the Safety Measurement System-Incidents/Accidents Fact Finders and Investigators User Guide Version 12 – August 4, 2016, and the System Safety Program Plan effective January 2015; (2) interviewed WMATA's personnel in SAFE, Bus Services, Rail Services, Office of Support Services, Department of Access Services, and Office of the Treasurer; (3) reviewed process flowcharts of SMS incident and accident reporting, and investigations module and assessed them for completeness and accuracy; (4) reviewed monthly reports prepared by Bus and Rail Safety Committees, quarterly reports and annual reports submitted by SAFE to the Board Safety and Security Committee, and Vital Signs Reports prepared by the Office of Performance (CPO). In addition, we interviewed personnel in CPO responsible for the preparation of the Vital Signs reports for internal management, the Board and the public, and (5) reviewed two reports issued by the FTA in June 17, 2015: *WMATA Safety Management Inspection Report, and the Safety Management Systems Gap Analysis.*

To assess the validity, reliability and integrity of incidents and accidents reported, and investigations processed in SMS, we extracted all incidents and accidents reported in SMS from July 1, 2014 through December 31, 2015, using IDEA Data Analysis software.

We compared the incidents and accidents reported to current policy instructions to assess if: (1) they were reported within 24 hours of the occurrence of the incident or accident, (2) fact finding data were entered within 48 hours of the occurrence of the incident or accident, and (3) Level 2, 3, and 4 investigations were completed within seven days from the occurrence of the incident or accident. The data tables we used were created using a Structured Query Language developed by the Applications Development and Operations Office. We were able to extract the necessary SMS data for analysis. We also compared the SMS RTW Module data to the Workers' Compensation Database data to determine if any omissions existed in SMS.

We contacted four transit agencies: (1) Los Angeles County Metropolitan Transit Authority, (2) Chicago Transit Authority, (3) Maryland Transit Administration, and (4) the Utah Transit Authority to determine if we could compare their Safety Measurement System with WMATA's.

We conducted this performance evaluation in accordance with Council of Inspectors General on Integrity and Efficiency "Quality Standards for Inspection and Evaluations" (January 2012) as appropriate to the scope of the performance evaluation. We believe that the evidence obtained provide a reasonable basis for our evaluation, results and conclusion based on our evaluation objective.

We held an exit conference on September 1, 2016, to discuss the preliminary findings from the evaluation with the Chief Safety Officer; the Chief, Office of Special Projects, Management and Oversight; a Deputy Chief in MTPD; the Chief Performance Officer; and the Director, Office of Risk Management. We conducted post exit meeting briefings with management in RAIL, BUS and Access Services.

Incident/Accident Levels

- **Level 1: Investigation of Fatalities, Serious, Life-Threatening Injuries, Derailments, Collisions or Fires (WMATA)** - Accidents resulting in fatalities and derailments, collisions, or fires resulting in property damage equal to or exceeding $25,000. Accidents resulting in visibly serious, life threatening injuries, to one (1) or more individuals, or as determined by the responding emergency medical personnel: transport to a medical facility of two (2) or more individuals with visibly serious injuries or as determined by the responding emergency medical personnel; yard derailments and collisions and fires resulting in more than $25,000 in property damage and an evacuation (vehicles or facilities) due to life safety reasons.

- **Level 2: Investigation of Major Accidents (WMATA)** - Accidents resulting in visibly serious, but non-life threatening injuries, to one (1) or more individuals, or as determined by the responding emergency medical personnel. Accidents resulting in visibly non serious injuries to five (5) or more individuals that require transportation to a medical facility, or as determined by the responding emergency medical personnel. Fires, rail and bus collisions resulting in $15,000 to $25,000 in property damage.

- **Level 3: Investigation of Minor Accidents (WMATA)** - Accidents resulting in visibly minor injuries that require only first aid and fires, rail and bus collisions resulting in up to $15,000 property damage.

- **Level 4: Investigation of Incidents (WMATA)** - Near Miss or Close Call: an event where no property damage and/or injury could have occurred.

- **Level 5:** Customer Request for Medical Assistance Only

MANAGEMENT'S RESPONSE

M E M O R A N D U M

SUBJECT: Response to OIG Evaluation Report No 17-05 – Evaluation of WMATA's Safety Measurement System

DATE: December 20, 2016

FROM: CSO – Patrick J. Lavin

THRU: GM/CEO – Paul J. Wiedefeld

TO: OIG – Helen Lew

The following represents the Chief Safety Officer's (CSO) Corrective Action Plan (CAP) in response to OIG's Evaluation of WMATA's Safety Measurement System (SMS). All three recommendations are assigned to the CSO.

OIG Recommendation 1
Develop controls to ensure that personnel at all levels of the organization comply with WMATA policies and procedures and applicable federal regulations and directives to timely report incidents and accidents, and conduct incident and accident investigations in WMATA's SMS.

Management's Response:
All departments within the Authority are required to timely report incidents and accidents, and conduct incident and accident investigations using WMATA's SMS.

Management has implemented the following corrective actions listed below to address the recommendation.

Business Intelligence
WMATA has utilized business intelligence software (IBM Cognos) to query SMS Incidents and Accidents (SMS I/A) data for trending and analysis starting in December 2014. This analysis included weekly scheduled departmental data compliance reports that reviewed the completeness of SMS I/A incident reports. Reports were also developed using real time data since January 2016, allowing departments to assess their SMS I/A compliance rate.

Injury Investigation Performance Metric
Starting in January 2016, the Office of Performance included a safety metric in operational business plans, which includes ensuring all injuries are investigated and entered into SMS I/A. Departmental performance of this metric is reviewed at each monthly Executive Safety Committee meeting, which is attended by the Executive Management Team. Compliance is determined by comparing workers' compensation claims to SMS I/A entries.

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SAFE Investigation Team
Starting in July 2016, the Department of Safety and Environmental
Management (SAFE) has been funded to establish a new division that will focus
on operational safety investigations. This division will include six investigators
and will report directly to the Assistant Chief Safety Officer, Operations and
Investigations. This team will also assist and facilitate other operational
departments' safety investigations and will monitor the quality of SMS I/A
operational investigations.

SMS I/A Database Fields Expansion
SMS I/A has expanded its original scope to include the business practices of
other departments to improve efficiencies and data quality starting in December
2014. This includes but is not limited to the integration of GIS identification of
the incident location, operator corrective action training, and MetroAccess-
specific fields. Additionally, causal factor decision trees and root cause analysis
tools were added to improve data trending and analysis. Adding these fields
reduced the data entry time and streamlined departmental data functions that
lead to improved data entry.

SMS I/A will also be updated to a SharePoint 2016 platform in CY17. This
update will allow for data entry in the field, which will improve the timeliness of
fact finding and investigations.

OIG Recommendation 2
Revise the SMS basic training course offered to employees to include the
timeliness requirement in the curriculum.

Management's Response:
Management has implemented the following corrective actions, which meets
the recommendation.

Both the SMS I/A training and SAFE's Incident/Accident Investigation course
cover the time requirements of P/I 10.4/0. Both training groups have been made
aware of the OIG's recommendation and will begin *emphasizing* the timeliness
requirement starting in CY17.

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OIG Recommendation 3
Develop systems integration data capability to ensure all data can be efficiently
and effectively transmitted from the Workers' Compensation Database to SMS.

Management's Response:
Management has implemented the following corrective action, which meets the
recommendation.

Starting in November 2016, a data feed was established between the Office of
Risk Management's Workers' Compensation System and SMS I/A. This feed
will automatically create an SMS I/A incident based on the initial workers'
compensation claim.

WMATA welcomes the OIG assistance in helping us improve our processes.
Should you have any further concerns, please contact Patrick Lavin, Chief
Safety Officer, at 202-962- ███ .

cc: COUN - Patricia Lee
    COO - Joseph Leader

TO REPORT FRAUD, WASTE, OR ABUSE

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