

# TCRP

REPORT ...

## Characteristics and Elements of Non-Punitive Employee Safety Reporting Systems for Public Transportation



TRANSPORTATION RESEARCH BOARD  
OF THE NATIONAL ACADEMIES

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# Final Report

## TCRP Report *XXX: Characteristics and Elements of Non-Punitive Employee Safety Reporting Systems for Public Transportation*

### Executive Summary

The Moving Ahead for Progress in the 21st Century Act (MAP-21) and its successor, the Fixing America's Surface Transportation (FAST) Act, prompted the Federal Transit Administration (FTA) to establish the Safety Management System (SMS) framework as the basis for their National Public Transportation Safety Program (49 U.S.C. Section 5329). The establishment of a proactive employee safety reporting (ESR) system is one key aspect of the SMS Safety Assurance function and is elemental in the implementation of an effective SMS. The Public Transportation Agency Safety Plan (PTASP) rule (49 Code of Federal Regulations [C.F.R.] Part 673) includes a requirement that public transportation agencies develop an ESR process as part of its SMS Safety Management Policy function:

§673.23(b) "A transit agency must establish and implement a process that allows employees to report safety conditions to senior management, protections for employees who report safety conditions to senior management, and a description of employee behaviors that may result in disciplinary action."<sup>1</sup>

The objective of this research is to "produce a compilation of the best practices used in non-punitive employee safety reporting systems at transit agencies. The best practices would include examples of how non-punitive employee safety reporting systems benefit transit agencies and their employees and could be used to assist transit agencies with developing their systems." Transit Cooperative Research Program (TCRP) Report *2XX, Characteristics and Elements of Non-Punitive Employee Reporting Systems for Public Transportation*, will support the public transportation industry's efforts to institute non-punitive ESR as a critical element in Safety Management Systems (SMS) implementation. The term "public transportation agency" is synonymous with "public transit agencies" or "transit agency," as reflected throughout this report.

This examination focuses on not only policy and procedural aspects, but on the safety cultures reflected in the public transit agencies in which this reporting has been, and continues to be, successful. For the purposes of this research, success of an ESR system, or successful elements, were determined by the agency that has implemented the ESR system. The researchers did not perform a statistical modeling or evaluation method to determine success. The researchers also address the challenges faced through the implementation phases of ESR system deployment, as presented through the literature review and transit agency case studies. The literature review and background research were the first steps in the development of the project report and

helped frame the subsequent narrative and findings from interviews with public transportation agencies.

## **Literature Review and Background Research Summary**

The National Transportation Safety Board (NTSB) investigated catastrophic collision events that resulted in loss of life, injuries, and costly damage and deduced that many of these events could have been avoided had an effective non-punitive ESR system been in place to report hazards. One of those events, the 2009 Washington Metropolitan Area Transit Authority (WMATA) train-on-train collision near Fort Totten Station, resulted in 9 fatalities, 52 injuries, and an estimated \$12 million in damages. This event led to NTSB recommendation R-10-004 to FTA:

“Facilitate the development of non-punitive safety reporting programs at all transit agencies to collect reports from employees in all divisions within their agencies and to have their safety departments; representatives of their operations, maintenance and engineering departments; and representatives of labor organizations regularly review these reports and share the results of those reviews across all divisions of their agencies.”<sup>2</sup>

NTSB made a similar recommendation (R-10-017) to WMATA.

The importance of safety culture in the discussion of non-punitive ESR system implementation cannot be overstated and requires a shift in the approach to public transportation safety management. TCRP Report 174 defines safety culture as “shared values (what is important to all public transportation system members who are responsible for safe, efficient revenue service) and shared beliefs and attitudes (how the transportation system works and what individual roles should be) that interact with all system members, safety policies, procedures, and rules to produce behavioral norms (the way we do our jobs, whether observed or not).”<sup>3</sup> Through the literature review, authors suggest that within an organization a cultural shift is necessary across the board to ensure that safety is the goal, with root cause analysis and corrective actions developed and disseminated throughout that organization. This safety culture shift requires the transition from a reactive approach to a proactive approach, which includes focused efforts on four cultural aspects—a reporting culture, an informed culture, a learning culture, and a just culture, according to a report titled *Implementing Safety Management System Principles in Rail Transit Agencies*<sup>4</sup> by the Transit Advisory Committee for Safety (TRACS). FTA’s SMS framework reflects this proactive approach. Unfortunately, safety culture is not easily measured as a specific set of characteristics. Additionally, due to the complexity of safety culture elemental improvements, measuring safety culture change is a slow and longitudinal process.

The background research addresses ESR and safety culture across industries. The research discussion includes an examination of the initial impetus behind some of the more advanced non-punitive ESR systems in the United States and the history and maturation of safety culture.

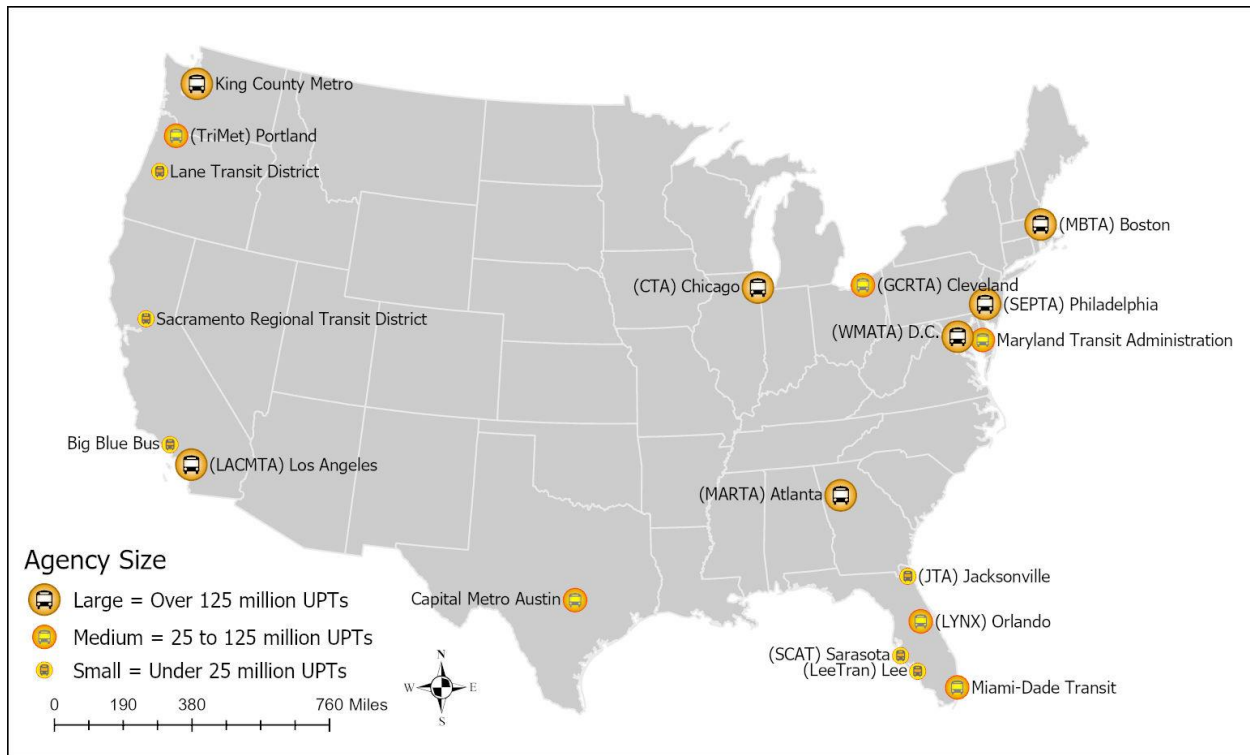
## **Stakeholder Interviews**

The researchers performed case studies of 19 public transportation agencies that have implemented ESR systems, graphically illustrated in Figure 1. A survey instrument was initially used to gather general information of the ESR systems in place. Varying reporting ESR system maturity levels are reflected in the case studies, ranging from ESR systems that have been in place less than 1 year to those implemented more than 20 years ago. The methods by which employee safety reporting can occur include hard copy forms, online submissions through apps, intranet, or email, and through the phone via hotlines, texts, or voicemail. Many of the case study transit agencies have multiple methods available to report hazards and expressed that this has resulted in greater participation. A few of the ESR systems use a third party to manage and maintain the data collected through their ESR system.

The survey questions revealed that the majority of ESR systems instituted at the transit agencies surveyed provide for both reporter anonymity and confidentiality. Nearly 8 out of 10 (79%) of respondent transit agencies indicated they have solicited employee feedback on their ESR system to improve the program and employee acceptance.

A total of 53 percent of the responding transit agencies have a policy in place with definitions of what may be reported in an ESR system and those events or actions that may result in punitive measures; 47 percent have no formal policy or their policy does not distinguish between reportable events and those reportable events for which punitive measures may apply. All respondent transit agencies include an introduction to their ESR system and reporting procedures during new hire training, and 68 percent of those transit agencies do not tailor the training by employment position.

Finally, transit agencies were asked to share what performance measures were established to determine the efficacy of their ESR system. Some performance measures tracked include, but are not limited to, the volume of reports received, status of reports, average days to closure, target closure dates, hazard classification, root cause, claims costs, lost time, and accident rates.



**Figure 1. Case Study Transit Agencies**

The researchers conducted interviews with each case study transit agency to discuss their responses to the survey and gain additional insight. Questions posed during these interviews and additional communication centered on these themes:

- Elements of effective non-punitive ESR systems
- Barriers to implementation
- Common practices identified by case study transit agencies as central to the success of their ESR system

Appendix A contains detailed case study narratives.

### **Elements of Effective Non-Punitive Employee Safety Reporting Systems**

The case study transit agencies found varying degrees of success in the design, implementation, and ongoing management of their ESR systems. Researchers identified those consistently represented ESR system elements from case study transit agencies, which also served to verify the findings from the background research. These elements or factors of success include:

- Participation of the local collective bargaining unit in the design, implementation, investigation, and/or corrective action processes
- Employee access – ease of reporting
- Well-defined procedural process for collecting, investigating, and correcting reported hazards

- Robust investigation process that involves multiple players from across the agency
- Feedback to reporters, from initial receipt of the report through the process and once the hazard has been corrected
- Method to ensure anonymity and/or confidentiality
- A written agreement between the agency and its employees that reporters can remain anonymous and provide protections against retaliation, intimidation, or discrimination of the reporter; these statements were included as part of collective bargaining agreements (CBAs) and memoranda of understanding (MOUs)
- Precise statement of what would be considered non-punitive and those that would result in punitive action, such as events or behaviors such as drug and alcohol-related activities, blatant disregard for other agency policies and directives, or others as defined by the transit agency
- A method that provides reporters an opportunity to challenge or appeal the outcome of the investigation or the corrective action taken
- Training and ESR system promotion
- Ongoing tracking of safety data, common ESR system hazards, and the effectiveness of mitigation strategies
- Periodic process and ESR system evaluation
- Utilization of a third party, when warranted or necessary due to the safety culture of the organization or the ESR system's complexity

### **Barriers to Implementation**

The primary barriers to implementation identified through the research and expressed by a few case study sites include gaining employee buy in, confidence in the ESR system, and trust. Employees want to know when they submit a safety report, the agency will investigate and correct the hazard and want to understand the process and be informed of the outcome. In addition, it is important for employees to feel confident that if a safety report is submitted anonymously or in confidence that the transit agency has effective protocols to ensure that anonymity. Finally, employees are unlikely to report near-misses or close calls if they do not trust that they can report with impunity and be protected against harassment, intimidation, retaliation, or discrimination.

### **Common Practices**

The background research and case studies reflect common threads to success specifically delineated above. Researchers organized case study common practices within the eight categories illustrated in Figure 2 and further described below in alphabetical order. While not a case study agency common practice, the use of a third party, when warranted, is also discussed.

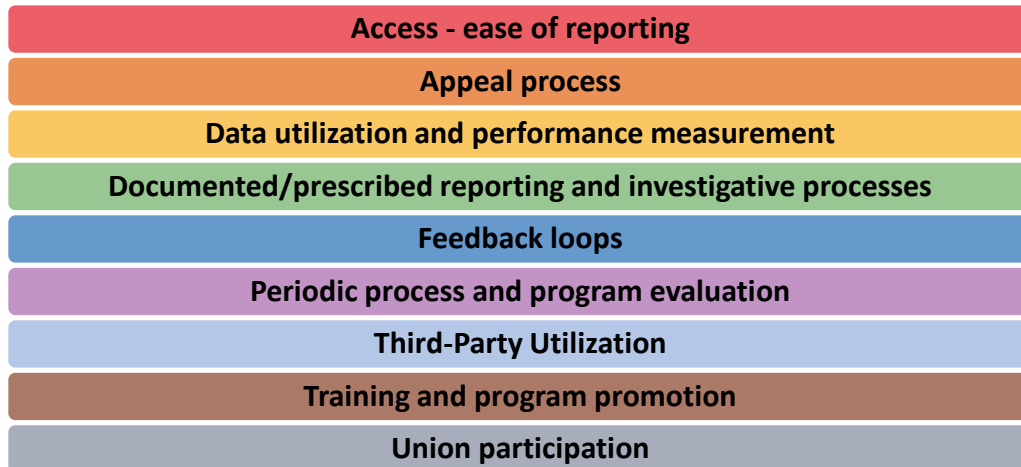


Figure 2. Case Study Common Practices

### ***Access – Ease of Reporting***

Of all public transportation agencies included as case study sites for this project, **SEPTA** has the most reporting options available to employees:

- Notify their managers verbally
- Complete a Hazard Report Form
- Notify their LSC representative
- Complete the “SEPTANow” online form
- Submit an email to [systemsafety@septa.org](mailto:systemsafety@septa.org)
- Submit through the non-emergency safety hotline
- Submit through the VERITAS Customer Service Tracking System to report hazards
- If a part of SEPTA’s commuter rail system under the Federal Railroad Administration (FRA) Confidential Close Call Reporting System (C3RS) program, may report through the National Aeronautics and Space Administration (NASA)

Conversely, Los Angeles County Metropolitan Transportation Authority (**LA Metro**) has a single online submittal method, the SAFE-7 Form. To accommodate their employees and ensure their ability to report, LA Metro installed desktop computers at each division and provides access to every employee. While there is only one method of reporting, employee access to the system has expanded, as has the number of reports submitted.

In both examples, **SEPTA** and **LA Metro** representatives indicated a consistent level of reporting and shared that significant agency improvements were made as a result of the reporting. The success of both ESR systems leads to a key takeaway that the ideal number of reporting options will not be consistently uniform across transit agencies. Rather the number of options should optimize employee access along with the agency’s ability to document and follow up with reported hazards.

### ***Appeal Process***

While some respondent transit agencies reported that their employee safety reporting policies do not include specific details on appeal processes, employees at those transit agencies do have the opportunity to submit subsequent hazard reports. **MARTA** and **SEPTA** have the most comprehensive appeal process details included in their operating procedure or bargaining agreement. Additionally, **Capital Metro**, **GCRTA**, **MBTA**, **MDT**, **SEPTA**, and **WMATA** employees have the option to submit a Good Faith Challenge in accordance 49 CFR 218.97 (for FRA regulated systems) if the employee feels they are in immediate danger. **LA Metro** and other case study sites have a similar structure place for rail operations not covered under FRA's Good Faith Challenge.

### ***Data Utilization and Performance Measurement***

All public transportation agency case study participants are champions of SMS and recognize the value of data-driven priorities in risk abatement and process improvement. Transit agencies understand that ESR systems are central to the effectiveness of the SMS framework and are using the data gathered in response to these reports to identify both lagging and leading risk indicators for their agencies. Some performance measures tracked include, but are not limited to, the volume of reports received, status of reports, average days to closure, target closure dates, hazard classification, root cause, claims costs, lost time due to injuries, and accident rates.

### ***Well-Documented and Prescribed Reporting and Investigative Processes***

**Capital Metro** designed their ESR system with time points that correspond to each process step, which includes a 30-day standard for disposition of an investigation report. Once a concern has been reported through the hotline or online, an Employee Reporting System Program Manager reviews the safety report and forwards to the department and/or Metro service provider assigned the responsibility of investigating the concern and providing a response to the reporter within 30 days.

**Greater Cleveland Regional Transit Authority's (GCRTA's)** Standard Operating Procedure (SOP) #8 provides the purpose, objectives, and guidance on various reporting mechanisms available to report conditions that may be safety critical. The SOP provides a standardized method for categorizing, tracking, and resolving hazards and reducing incidents and injuries through the resolution of the identified hazards.

The **Jacksonville Transportation Authority's (JTA's)** draft policy (under development) includes a goal of closing out all reported safety hazards within seven days of receiving the report. Once corrective measures are identified and implemented, JTA conducts follow-up evaluations at 30, 60, and 90 days after implementation to ensure the mitigation has worked as intended and not resulted in unintended consequences.

**Lane Transit District's (LTD's)** non-punitive safety reporting activities, including reporting methods, follow-up activities, data collection, and development and tracking of corrective actions to eliminate or mitigate issues reported, are outlined in two policies and LTD's CBA with ATU Local 757. LTD makes their policies, the *LTD Operator Policy and Procedure Manual* and the *Administrative Employee Handbook*, available to drivers online and in hard copy form.

**Massachusetts Bay Transportation Authority (MBTA)** and **SEPTA** participate in FRA's C<sup>3</sup>RS for their commuter rail operations. The reporting process and procedures associated with investigating and correcting reported hazards is well-vetted and documented in negotiated MOU with their unions, FRA, and the third-party administrator, NASA.

**WMATA** contracts with the U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) to confidentially collect and manage employee safety reports submitted through the agency's C<sup>3</sup>RS program. In the development of their program, WMATA reviewed existing programs and processes, including FRA's C<sup>3</sup>RS program through NASA. They cited the confidentiality protection of BTS as a contributing factor in the selection of BTS as their third-party administrator.

### **Feedback**

The literature review and the case studies emphasized the importance of a feedback loop—constant communication between reporters and those responsible for implementing the hazard elimination or mitigation measures. This feedback loop is important to foster an environment in which employees feel appreciated and empowered to improve the safety of their working environment through ESR. Feedback is also important even when the hazard is reported anonymously or confidentially, and many transit agencies have found ways of sharing safety improvements in safety meetings and using various bulletins or other information dissemination methods.

### **Periodic Process and Program Evaluation**

The findings from the literature review and the case studies corroborate the importance of iteratively evaluating the program to ensure that it is performing as intended. One very valuable way of evaluating the success of an ESR system is through employee surveys that garner feedback on suggested improvements. By giving employees an opportunity to provide input on the process, transit agencies may foster increased reporting as well. These evaluations are also related to the feedback noted previously, which builds morale and improves overall safety culture.

### **Third-Party Utilization**

With the exception of public transportation agency case studies that have C<sup>3</sup>RS embedded in their ESR options (**MBTA and SEPTA**) **WMATA's use of BTS**, and the use of Navex Global for anonymous reporters through the Tri-County Metropolitan Transportation District of Oregon (**TriMet's**) ESR system, other case study sites are not using a third party to collect, analyze,

report, or maintain safety data. However, researchers obtained feedback from case study sites that, with the implementation of SMS and the adoption of PTASPs, a national safety reporting platform would be quite valuable and would likely ensure greater employee safety reporting. This feedback and the literature review findings suggest there is benefit to the confidentiality and data protection characteristics of an ESR system that is managed by a third party.

### ***Training and Program Promotion***

Training is an important element in the successful implementation of any ESR system. All interviewed transit agencies introduce the opportunity for employees to report hazards that are identified in their working environment during new hire training. Several transit agencies also remind their employees of the reporting opportunities at safety committee meetings, refresher training, and other safety outreach events. Most transit agencies interviewed by researchers do not tailor their training by employment position and do not provide training to contracted employees.

### ***Union Participation***

Several of the case study transit agency representatives expressed benefits related to union participation in the development and encouragement of use of ESR systems. When union representation is supportive of ESR efforts and encourages employee participation, the safety culture of an organization may improve through the proactive mitigation of identified hazards.

The ***Big Blue Bus (BBB)*** representatives reported that the positive relationship between the safety department and union management was pivotal in implementing a strong safety culture, which provided the platform on which the ESR system could be constructed and implemented.

***King County Metro*** described union management as supportive of SMS and the positive changes it will bring to the transit agency. The positive relationship established between the organization and the local union has been and continues to be central to the successful maturity of the agency's safety culture.

The ***Metropolitan Atlanta Regional Transit Authority (MARTA)*** reported that they conducted an in-person "soft survey" with ATU management and union stewards before the rollout of the ESR system to gain input on how to report and how members could use the ESR system. At that time, ATU viewed the ESR system favorably; however, ATU members established that when reports are given, they want to see action taken.

While the initial design of ***Miami Dade Transit's (MDT)*** current ESR system did not include participation from the Transport Workers Union (TWU), the union currently remains very engaged and integrated into the decision-making process.

***Sacramento Regional Transit (SacRT)*** reported their ESR system was designed with union input and continued support through employee encouragement of use.

Union representation assisted Sarasota County Area Transit (**SCAT**) management in the development and implementation of the ESR system reporting formats used, ensuring anonymity when desired.

The Southeastern Pennsylvania Transportation Authority (**SEPTA**) works closely with their labor representatives to ensure continuous improvement in the processes in place. Employees who are actively involved in the LSCs are encouraged to offer ideas for safety reporting process improvements.

### **Program Design Framework and Elements for Continuous Improvement**

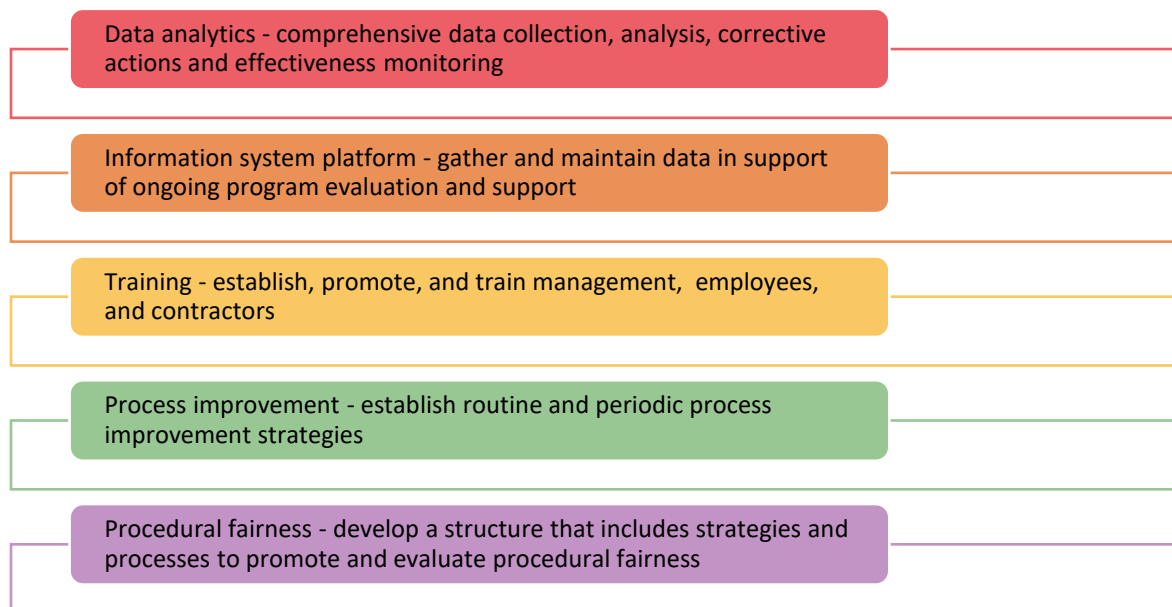
Several representative frameworks for ESR systems were identified through the background research that delineate the critical elements included within those frameworks. At a minimum, a public transit agency should develop policies, procedures, and programs based on a clearly defined implementation strategy and standard operating practice. Based on the background research and case studies, the research team recommends the program design framework reflected in Figure 3.

The success of ESR systems rests in elements of continuous improvement centered in SMS principles. These success factors are represented in Figure 4 and further discussed in Chapter 4. Specific performance measures should be developed for each of these factors.

This executive summary is provided to identify the overarching themes examined within this report, findings from the literature review and background research, and highlights from the case studies. The research findings, detailed case study narratives, sample tools and resources provided by case studies, and recommendations for additional research are examined more fully and presented in the full report and corresponding appendices.



**Figure 3. Program Design Framework**



**Figure 4. Success Factors for Program Improvement**

## **Conclusions and Recommendations for Additional Research**

The objective of research was to “produce a compilation of the best practices used in non-punitive employee reporting programs... (to) assist transit agencies with developing their programs.” Rather than “best practices,” researchers identified practices as “leading” when they could stand as model practices due to the effectiveness illustrated through the case study examinations and the literature review. Researchers also reported the challenges faced through the implementation phases of ESR system deployment and the benefits of an ESR system, as reflected in the background research and the transit agency case study identified successes.

In the background research, researchers identified the benefits associated with wide dissemination of commonly reported hazards and methods to address them. National reporting systems such as the ASRS, FRA’s C<sup>3</sup>RS, SafeOCS, OSHA, NATCA, and NRC all provide national stakeholder dissemination. **Research to examine the options available to develop a central repository of public transportation industry reported hazards, close calls, and near-miss information to produce aggregated national reports would be beneficial to the industry.**

The research recognizes the benefits of using an external party to administer and manage an ESR system, which includes increasing the likelihood that employees will report safety events and reducing the likelihood that there will be associated punitive or retaliatory consequences. However, there was concern voiced about the costs of instituting the program through a third party. **This presents a research opportunity to develop a strategy for examining opportunities for a national employee safety reporting system for the public transportation industry and the steps that the industry can take to institute such a national ESR system.**

The report contains resource materials from the case study sites that were included in this research effort. **The industry would benefit from a “Non-Punitive Employee Safety Reporting” toolkit or online resource repository** that could build upon the sample policy statements, marketing/outreach materials, sample procedures, and sample CBA or MOU language included as a part of this project, which public transportation agencies could use as they develop and implement their ESR systems.

Finally, it is important that employees who report and public transportation agencies collecting, analyzing, and maintaining safety data in support of SMS are assured that the data can remain confidential. **Without evidentiary protections, the ability of an agency to protect employee-submitted data or accident/incident data is limited. The more protections granted to employees, including industry evidentiary protections, will ensure greater reporting and, in turn, safer public transportation agencies.**

## Chapter 1 – Introduction

Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) and its successor, the Fixing America’s Surface Transportation (FAST) Act, prompted the Federal Transit Administration (FTA) to establish the Safety Management System (SMS) framework as the basis for their National Public Transportation Safety Program (49 U.S.C. Section 5329). The establishment of a proactive employee safety reporting (ESR) system is a key aspect of the SMS Safety Assurance function and is elemental in the implementation of an effective SMS.

A non-punitive ESR system is defined in the report *Establishing a Confidential, Non-Punitive, Close Call Safety Reporting System for the Rail Transit Industry* as a:

“... a voluntary system encouraging all employees to report events that otherwise would not have been discovered by transit agency management, yet nonetheless could be symptoms of problems that could lead to more serious future events.”

Non-punitive ESR will not only allow public transportation agencies to identify safety hazards that may otherwise go unrecognized but also help ensure the support of transit workers so potential risks can be identified and abated prior to any accident or incident occurring. Effective non-punitive ESR systems are reflective of a robust safety culture in which all stakeholders work together to continuously improve safety.<sup>5</sup>

TCRP Report XXX, *Characteristics and Elements of Non-Punitive Employee Reporting Systems for Public Transportation*, identifies the basis of non-punitive ESR systems to assist public transportation agencies in advancing SMS in their transit agencies. This examination focuses on policy and procedural aspects as well as cultural elements that are reflected in transit agencies at which this reporting has been, and continues to be, successful. The challenges faced through the implementation phases of ESR system deployment are also included. The literature review and other background research were the first steps in the development of the project report and helped frame subsequent narrative and findings from interviews with public transportation agency case study personnel.

This research draws from lessons learned by other transportation modes, including, but not limited to, the airline and railroad industries, and from non-transportation industries, such as the petroleum and nuclear power industries. Additionally, it builds on related research conducted by and/or for the transportation industry by Federal agencies and organizations including, but not limited to, FTA, NTSB, TCRP, the Transportation Research Board (TRB), and the U.S. Department Transportation (U.S. DOT) Volpe National Transportation Systems Center. This report addresses the following critical, relevant aspects regarding the development and implementation of a non-punitive ESR system:

- Experience of transit agencies that have implemented an ESR system
- Specific characteristics and elements implemented
- Organizational strategies for promoting procedural fairness for employees
- Impact of non-punitive ESR systems on the safety culture of an organization
- Roles of stakeholders in the development, implementation, and ongoing operation of a non-punitive ESR system
- Types of data that should be collected, tracked, and trended
- Strategies for collecting and managing the data
- Scalability of the ESR system for transit agencies of different sizes and data processing capabilities
- Use of third parties

## **Objective**

The objective of this research is to “produce a compilation of the best practices used in non-punitive employee reporting programs at transit agencies. The best practices would include examples of how non-punitive employee reporting programs benefit transit agencies and their employees and could be used to assist transit agencies with developing their programs.” In accordance with this objective, this report presents the characteristics and elements of a non-punitive ESR system to facilitate improved safety performance for rail and bus transit agencies.

The literature review provided the framework upon which to base the review of each agency’s ESR system. Non-punitive ESR system successes, for the purposes of this research, were determined by the transit agency, and were not determined successful through a statistical modeling or evaluation method by the researchers.

## **Research Methodology**

The research team used the following methods to determine the characteristics and elements that lead to effective and mature ESRs:

- Literature review and background research
- Case studies of 19 public transportation agencies

The literature review and background research document the benefits of non-punitive ESR systems, including the role of safety culture in the efficacy of an ESR system and relevant aspects of a program. The research included case studies of 19 public transportation agencies that have implemented an ESR system. The transit agencies are geographically dispersed and vary in size, operating characteristics, and the complexity of the ESR system instituted. A summary of the case study research is presented in Chapter 3, complete case study narratives are included in Appendix A, and the initial survey questionnaire disseminated to case study participants and interview guide are included in Appendix B.

The background and case study research provided context and presented common non-punitive ESR system elements. These common elements, as well as leading practices and other

findings from the research are discussed in Chapter 4. Conclusions and recommendations for additional research are presented in Chapter 5.

### ***Study Limitations***

Limitations of the study center on the challenges of program cost and associated benefit valuation based on case study examinations.

***Estimation of costs.*** In the areas of program development, implementation, and ESR system management costs, case study transit agencies established ESR systems as part of their SMS program and, therefore, were unable to segment the personnel efforts specifically for ESR system activities. More specifically,

- Case study transit agencies are not documenting personnel participation and management of the report review, processing, follow-up, and ongoing tracking of reported safety concerns.
- For many case study transit agencies, these processes, while not as robust or far-reaching as those that now exist as a part of their SMSs, have been in place as “hazard” reporting systems.
- Establishing the additional costs associated with this expanded focus and post-reporting practices has not been consistently performed.
- While there were transit agencies that could identify a cost associated with the development of tools and online ESR systems, many developed these tools and ESR systems “in house” by employees who were also responsible for other agency support activities.

***Estimation of the benefits*** of a transit agency’s ESR system should include quantitative measures supported by performance data, which presents additional challenges. Each transit agency must establish minimum safety performance targets in their PTASP consistent with FTA’s National Public Transportation Safety Plan, for the following:

- Fatalities
- Injuries
- Safety events
- ESR System reliability

Longitudinal analysis and presentation of benefit is hindered by the relative immaturity of the ESR systems examined or the transitioning from existing hazard ESR systems to the more comprehensive ESR systems encapsulated in SMS processes. In addition, the variability of these occurrences—specifically injuries, fatalities, and safety events—would present challenges to transit agencies that were evaluating the improvements in their systems through time.

In their implementation of SMS, transit agencies have redefined and restructured their approach to organizational safety. ESR system development and implementation may be one of

many safety solutions and mitigation strategies adopted by public transit agencies. Strategies could—and, in the case study examples, do—include focused and more frequent training, infrastructure modifications, and institution of various technologies such as collision warning and other systems as examples. In this environment, public transit agencies and other program evaluators would not be able to attribute agency improvements reported within any of the performance targets specifically to the ESR system and, therefore, would not be able to delineate the benefits of the ESR system based on these targets. Findings from the literature review reflect demonstrated, data-supported benefits, identified as “leading practices.” These are examined in the following section.

## **General Background and History**

NTSB investigated catastrophic collisions that resulted in loss of life, injuries, and costly damage and deduced that many of these events could have been avoided had an effective ESR system been in place. One of these collisions, the 2009 Washington Metropolitan Area Transit Authority (WMATA) train-on-train collision near Fort Totten Station, resulted in 9 fatalities, 52 injuries, and an estimated \$12 million in damages. This event led to NTSB recommendation R-10-004 to FTA:

“Facilitate the development of non-punitive safety reporting programs at all transit agencies to collect reports from employees in all divisions within their agencies and to have their safety departments; representatives of their operations, maintenance and engineering departments; and representatives of labor organizations regularly review these reports and share the results of those reviews across all divisions of their agencies.”<sup>6</sup>

NTSB recommendation R-10-017 to WMATA regarding the Fort Totten collision was as follows:

Develop and implement a non-punitive safety reporting program to collect reports from employees in all divisions within your organization, and ensure that the safety department; representatives of the operations, maintenance, and engineering departments; and representatives of labor organizations regularly review these reports and share the results of those reviews across all divisions of your organization.<sup>7</sup>

NTSB findings from a December 1, 2013, Metro-North derailment indicated that there was not an effective program in place that encouraged all employees to report safety issues and observations.<sup>8</sup> According to the NTSB Special Investigative Report *Organizational Factors in Metro-North Railroad Accidents*, although Metro-North had a safety hotline in place, employees were reluctant to report safety concerns in fear of both discipline and retaliation due to the experiences of previous reporters. One specific unintentional mistake—the inadvertent removal of blocking devices, which resulted in a fatal event—led to an employee’s removal from service for 30 days as a disciplinary measure, 10 days of which were for re-instruction.<sup>9</sup>

NTSB concluded that based on this event, the single report made to the Metro-North safety hotline in the 12 months following the event, and the fear of retaliation expressed by some employees, Metro-North did not have an effective program.<sup>10</sup> The disciplinary action for unintentional mistakes and lack of reporting are both key indicators of an unjust safety culture.<sup>11</sup>

On September 30, 2010, two Canadian National Railway (CNR) freight trains collided near Two Harbors, Minnesota. In 2013, NTSB released Rail Accident Report (RAR) -13/01 with associated recommendations for both the CNR and the Federal Railroad Administration (FRA). Recommendation R-13-13 directed CNR to work with the Brotherhood of Locomotive Engineers and Trainmen and the United Transportation Union to develop and implement a non-punitive peer audit program focused on rule compliance and operational safety.<sup>12</sup>

In 2013, the National Safety Council (NSC) found that hazard warnings and near-miss incidents preceded most loss-producing events and established that recognizing and reporting near-misses has the potential to significantly improve worker safety and enhance an organization's safety culture. Many reports and presentations emphasize the importance of proactive employee hazard reporting with impunity to encourage reporting and improve the overall safety culture.<sup>13</sup>

### ***FTA and Close Call Reporting***

In response to the NTSB recommendations and other report findings and to improve data collection and analysis related to close call and near-miss safety events in the transit industry, FTA initiated two efforts to further examine ESR systems. In 2009, the U.S. DOT Secretary authorized the establishment of the Transit Advisory Committee for Safety (TRACS) to provide advice and recommendations to the FTA Administrator regarding transit safety issues. In 2011, the FTA Administrator tasked TRACS to develop guidelines for the industry that resulted in the TRACS 11-01 Letter Report *Establishing a Confidential, Non-Punitive, Close Call Safety Reporting System for the Rail Transit Industry*.

FTA's *Close Call Reporting System Program Implementation Plan*, published in June 2012, was to help guide an FTA-sponsored C<sup>3</sup>RS pilot. This pilot, had it been implemented, would have provided an opportunity to develop and iteratively improve a close call ESR system to allow transit agencies the opportunity to identify and subsequently mitigate hazards proactively. FTA envisioned that the ESR systems established through the pilot would foster just safety cultures in which safety concerns would be voluntarily and cooperatively communicated in a non-punitive environment.<sup>14</sup> While FTA did not initiate a C<sup>3</sup>RS pilot, they did institute an SMS Pilot Program that included the implementation of an ESR component as part of the pilot transit agencies' SMS frameworks.

During the 2017 TRB Annual Meeting, FTA presented "Safety Management System (SMS) Approach and FTA's Research Initiatives," indicating that the Public Transportation Agency

Safety Plan (PTASP) Final Rule would include a requirement that an ESR program be developed as part of the SMS Safety Assurance function.<sup>15</sup> On July 19, 2018, FTA published the PTASP Final Rule at 49 C.F.R. Part 673, with an effective date of July 19, 2019, that establishes the requirement for transit agencies to develop and institute a non-punitive ESR system in support of the SMS Safety Risk Management and Safety Assurance functions.

Several transit agencies included in the case studies performed as a part of this research, including Capital Metro, Lane Transit District, Los Angeles County Metropolitan Transportation Authority (LA Metro) , Metropolitan Atlanta Regional Transit Authority (MARTA), Massachusetts Bay Transportation Authority (MBTA), Miami-Dade Transit (MDT), Maryland Transportation Authority (MTA), and Southeastern Pennsylvania Transportation Authority (SEPTA), as examples, proactively implemented ESR systems at their transit agencies, prior to the release of the PTASP Final Rule. The transit agencies that already have established successful ESR systems have been able to provide the industry with valuable insight and advice assisting them in the development of their own programs.

Critical elements surfaced through the examples provided by transit agencies that have implemented ESR systems and programs developed in other transportation modes. To ensure successful implementation of a non-punitive ESR system, there should be an understanding among all employees that the public transportation agency has designed and deployed the ESR system within the SMS framework, that hazard elimination (or mitigation) is a priority for the agency, that the implementation of the ESR system represents the transit agency's commitment to the safety of all employees and passengers, and that a commitment motivated its development and implementation.

## Chapter 2 – Literature Review and Background Research

In the development of the literature review and in the construct of the research report, researchers considered certain questions and sought to obtain answers:

- What are the characteristics and elements that should be included in an effective non-punitive ESR system?
- Which public transit agencies currently have non-punitive ESR systems?
- What does it mean to have a positive safety culture, and how does it affect a transit agency's ability to implement a non-punitive ESR system?
- Are there initiatives in other industries that public transportation agencies can effectively apply within their own ESR systems?
- Do ESR systems lead to improvements in the overall safety of a transit agency?
- What are the benefits or importance of ESR systems being non-punitive?

Literature review findings address these questions, providing answers that give context to the overall report. It is important to note that a non-punitive ESR system is only one element of an SMS, but its role in the overall safety culture within the public transportation industry cannot be overstated.

The literature review findings address the following topics and subtopics:

- Benefits associated with non-punitive ESR systems
- Positive safety culture impacts of ESR systems
- Characteristics and elements of ESR systems including:
  - The role of stakeholders
  - Strategies for collecting and managing data
  - The use of third parties
  - Procedural fairness
- Examples of non-punitive ESR systems from all industries
- ESR system scalability
- ESR system framework
- Third party management and report collection

### Benefits of a Non-Punitive ESR System

In creating a culture of safety, the American Public Transportation Association (APTA) cites a non-punitive near-miss policy as one of the indicators for an effective SMS.<sup>16</sup> Numerous benefits are associated with effective ESR systems, particularly those created through an SMS structure and driven by ESR safety indicators; these benefits are further defined and discussed below.

Significant research has been performed addressing the benefits of ESR systems across the transportation industry, including the Federal Aviation Administration's (FAA) well-defined and

long-standing Aviation Safety Reporting System (ASRS), and has concluded that non-punitive ESR systems that identify close calls have benefitted the industries and entities that have adopted them. Based on recognized benefits described in research activities and through improved safety records for those industries, FRA established its C<sup>3</sup>RS program. In its most recent lessons learned publication, FRA stated:

C<sup>3</sup>RS can be beneficial and sustainable in the railroad industry with both good implementation by individual carriers and continued support from FRA and national labor. FRA has taken steps to support sustainability in the railroad industry. Those steps have included continued funding for the C<sup>3</sup>RS program's third party to collect close call reports and the allocation of dedicated staff.

Due to its success, FRA's pilot program expanded from the four original sites to nine sites (two original sites and seven passenger rail agencies) as of August 2019.<sup>17</sup>

A 2018 presentation of Volpe's 2017 study of FRA's C<sup>3</sup>RS showed that since implementing a confidential close call reporting system, derailments have been reduced 20–40 percent across three sites, transportation-related injuries fell by 18 percent at one site, and two sites saw 39–90 percent fewer disciplinary hearings (specific pilot locations were not disclosed).<sup>18</sup> The authors attributed the reduction in derailments to the corrective actions taken in response to employee reports and the level of reporting that now exists due to the protection against punitive actions granted to employees.

FTA is conducting an SMS Implementation Pilot Program that includes the establishment and implementation of ESR systems. The pilot, which includes the Chicago Transit Authority (CTA) and transit services in Frederick County, Montgomery County, and Charles County, Maryland, serves to provide SMS implementation guidance to the public transportation industry, including the importance of ESR in both the SMS safety risk management and safety assurance functions. FTA designed the program to demonstrate the benefits of confidential, non-punitive, near-miss reporting in improving transit safety by identifying the risks that exist within an agency and establishing formal approaches, including the development of corrective actions, to mitigate those risks. FTA's Close Call Reporting System Implementation Plan<sup>19</sup> and TRACS Report 11-01 *Establishing a Confidential, Non-Punitive, Close Call Safety Reporting System for the Rail Transit Industry*<sup>20</sup> were resources used to establish the structure of FTA's pilot program.

### ***Safety Culture Impacts***

TCRP Report 174 defines safety culture as “shared values (what is important to all public transportation system members who are responsible for safe, efficient revenue service) and shared beliefs and attitudes (how the transportation system works and what individual roles should be) that interact with all system members, safety policies, procedures, and rules to produce behavioral norms (the way we do our jobs, whether observed or not).”<sup>21</sup> The importance of safety culture in the discussion of non-punitive ESR requires an industry shift in

the approach to manage public transportation safety. This culture shift within transit agencies is necessary to ensure that safety is understood as the ultimate goal, with root cause analysis and corrective actions developed and disseminated throughout each transit agency. According to the TRACS report *Implementing Safety Management System Principles in Rail Transit Agencies*, this safety culture shift requires the transition from a reactive approach to a proactive approach that includes focused efforts on four cultural aspects:

- **A reporting culture** that encourages the reporting of hazards without fear of retribution.
- **An informed culture** that uses the collection and analysis of leading indicators of safety performance metrics to base all decision-making.
- **A learning culture** that uses the results of informed decision-making to improve policies or procedures and details all necessary changes through employee training.
- **A just culture**, in which employees are not punished for unintentional errors but are held accountable for deliberate or reckless actions.<sup>22</sup>

In TRACS Report 16-01, *Building Toward a Strong Safety Culture Within the Bus and Rail Transit Industry*,<sup>23</sup> the working group members recognized that formal data collection systems and non-punitive ESR systems are necessary elements of a strong safety culture within a transit agency. They stressed that non-punitive employee reporting does not mean all behavior is acceptable as long as it is reported and added that rules must be followed. However, they characterized safety reporting as an opportunity for transit employees to voice safety concerns without fear of reprisal and assist in finding solutions to the problems identified, thus strengthening the safety culture.<sup>24</sup>

A companion study documented in TRACS Report 11-01, *Establishing a Confidential, Non-Punitive, Close Call Safety Reporting System for the Rail Transit Industry*, found that a non-punitive close call reporting system has the potential to build trust between labor and management, knowing the information will be acknowledged and not be used against the employee who reported it.<sup>25,26</sup>

ESR systems are central to the maturation of SMS within a transit agency, but a robust safety culture is at the heart of the effective and successful installation of an ESR system. While safety is often cited as being the number one goal of any transit organization, it is complex and includes all facets of public transportation service delivery, maintenance, and management. Encouraging a culture of safety can “determine the commitment to, style, and proficiency of the public transportation agency”<sup>27</sup> and, thus, the success of non-punitive ESR systems. By recognizing the interrelated nature of ESR and safety culture, the literature review does not reflect an examination of ESR in a vacuum, but rather through highly correlated factors such as safety culture.

The National Safety Council (NSC) report *Near-Miss Reporting Systems* states that many safety activities are reactive rather than proactive and indicates that close calls or near-misses typically occur or are identified before an accident occurs. In highly evolved safety cultures, in

which the element of trust exists, a non-punitive, close call ESR system allows hazards or incidents to be reported through a formal ESR system and corrected before an accident or fatality occurs.<sup>28</sup>

While statistics detailing how many accidents or fatalities were possibly prevented as a result of implementing a non-punitive ESR system are limited, Hanssen's 2006 report states that close call reporting systems are cost-effective and one of the leading factors in creating a safety culture within an organization. For cost-effectiveness, it allows errors to be identified and corrected before they become a cost to the organization. In creating a safety culture, as it influences the values, attitudes, beliefs, and behaviors within an organization,<sup>29</sup> a non-punitive ESR system creates an environment in which "... everyone shares and contributes in a responsible manner to their own safety and that of their fellow workers."<sup>30</sup>

Safety culture and the benefits of ESR systems are examined through the evolution of safety culture of the Offshore Oil and Gas Industry and the maturation of ESR in that industry.

### *Offshore Oil and Gas Industry*

The origin of the term "safety culture" came from the investigation of one of the most devastating nuclear power plant accidents in history, Chernobyl.<sup>31</sup> This event changed the approach to safety in the nuclear power industry and served as an example for others, such as the offshore oil and gas industry. In 2014, the National Academies of Science (NAS) convened the Committee on Offshore Oil and Gas Industry Safety Culture and commissioned the study *Strengthening the Safety Culture of the Offshore Oil and Gas Industry*. The study examined the history of the industry and described the historical culture as "production over safety." It reflected on a theme found in many industries—that there are significant inconsistencies in data collection and the reporting of accidents and injuries.

Following a number of disasters and the institution of regulations and practices, there were improvements reported in the industry, but with incomplete historical data, this was difficult to quantify or confirm. The Committee on Offshore Oil and Gas Industry Safety Culture established a number of recommendations to the industry that included methods to strengthen and sustain safety culture:

- Conducting collective and collaborative actions – industry leaders, federal regulators, operators, and contractors
- Establishing an independent entity dedicated solely to offshore safety
- Adopting safety management systems
- Assessing safety culture
- Implementing change
- Using safety management principles to improve safety performance
- Ensuring data collection and the availability of that data
- Seeking safety culture champions from within the industry
- Establishing memoranda of understanding to promote safety culture

- Assessing and improving safety culture

In April 2010, the Deepwater Horizon explosion and fire occurred, and the subsequent investigation identified numerous deficiencies. In response, the American Petroleum Institute created the Center for Offshore Safety (COS), an industry association focused on improving the safety of the offshore oil and gas industry, with responsibilities that include:

- Developing good practice documents for the offshore industry in the areas of Safety and Environmental Management Systems (SEMS)
- Assuring that third-party certification program auditors meet the program's goals and objectives
- Compiling and analyzing key industry safety performance metrics
- Establishing Coordinating Center-sponsored functions designed to facilitate the sharing and learning process
- Identifying and promoting opportunities for the industry to continuously improve
- Developing outreach programs to facilitate communicating with government and external stakeholders

In addition, the U.S. Department of the Interior's Bureau of Safety and Environmental Enforcement (BSEE), one of the regulatory and oversight bodies for the offshore oil and gas industry, made compliance with the Safety and Environmental Management Systems rule compulsory,<sup>32</sup> which requires the industry to submit near-misses and incident reports and share them with the industry.

In 2013, the BSEE released a list of characteristics of organizations that have developed strong safety cultures:

- Leadership commitment to safety values and actions
- Respectful work environment
- Environment for raising concerns (*emphasis added by author*)
- Effective safety and environmental communication
- Personal accountability
- Inquiring attitude
- Hazard identification and risk management
- Safe work processes
- Continuous improvement

In 2013, the BSEE and the Bureau of Transportation Statistics (BTS) entered into an interagency agreement to implement and operate a voluntary confidential near-miss ESR system for the offshore industry, the Safe Outer Continental Shelf (SafeOCS). BSEE established this system to provide an environment for operators and employees to raise concerns and report equipment and other safety-related events. In November 2016, a Memorandum of Understanding (MOU) between BSEE and BTS expanded the program to include the reporting of safety and pollution prevention equipment (SPPE) failure reports.<sup>33</sup>

## Characteristics and Elements of a Non-Punitive Employee Safety Reporting System

This section presents the specific characteristics and elements of non-punitive ESR systems found in the background research, including the roles of stakeholders, types of data that should be collected, data collection strategies, and strategies for procedural fairness.

A non-punitive ESR system promotes the reporting of safety issues, with basic structural characteristics that guarantee confidentiality and, sometimes, anonymity for those who report. Additional key characteristics include policies with explicit rules regarding who can report, the types of reports employees can make, guidelines for reporting, guidelines for data usage, identification of eligible reporters, and delineation of ESR system ownership.<sup>34</sup> The purpose of the non-punitive element of an ESR system is to “provide protection from disciplinary action for employees who submit qualifying reports”<sup>35</sup>; this should be clearly stated in any process or procedural documents. Persons who believe they will be disciplined for a safety-related issue are less likely to report it.

The TRACS report *Establishing a Confidential, Non-Punitive, Close Call Safety Reporting System for the Rail Transit Industry* goes a little further by also including the need for all reporting to be voluntary, in an attempt to give all reports equal standing no matter who submits the issue. It notes the use of a third party as a viable solution for data collection, de-identification of reporters, and report preparation to help maintain confidentiality and investigate the reports to prevent conflicts of interest. The report stresses that feedback provided by a third party investigator plays an essential role in identifying the actual problem and safety risk areas for an agency and proposing solutions.<sup>36</sup> Depending on the size of the transit agency, this may not be fiscally feasible or otherwise warranted; however, larger transit agencies or those with less mature safety cultures may find the use of a third party a viable or preferred option.

The August 2019 *FTA Transit Safety and Oversight Spotlight* newsletter highlighted four elements required in an ESR program that are included in the PTASP regulation (49 C.F.R. Part 673):

- A process that allows employees to report safety conditions to senior management
- Protections for employees who report safety conditions to senior management
- A description of employee behaviors that may result in disciplinary action and, therefore, are excluded from protection
- Communication on actions taken in response to employee reports

The ESR process should be considered a reporting cycle that serves as an iterative source of safety data.<sup>37</sup>

In TCRP Report 149, *Improving Safety-Related Rules Compliance in the Public Transportation Industry*, the authors developed a best practices checklist that transit agencies could use in

designing and implementing an ESR system. Best practices were established within four categories:

- Ensuring stakeholder participation and “buy-in”
- Establishing processes and protocols for piloting the ESR system
- Disseminating the results to the industry and providing the assistance necessary to ensure its success
- Disseminating the information obtained through the ESR system.<sup>38</sup>

### ***Roles of Stakeholders***

Key stakeholders in a non-punitive ESR system may include:

- The labor union
- Organizational management
- An independent third party, as further described in subsequent sections
- State or Federal oversight agencies (where applicable)
- A peer review team
- Regulators, such as FRA
- Other external parties

In addition, transit agencies should consider any internal or external committees or teams assigned to implement SMS as stakeholders in this process.

In TCRP Report 149, *Improving Safety-Related Rules Compliance*, the authors established that an environment of cooperation between labor and management is foundational in an ESR system.<sup>39</sup> Stakeholder participation is not only established as important during the initial design and implementation of the ESR system, but as an ongoing procedural element. Their roles should include, but not be limited to, providing specific feedback on safety reports submitted, ensuring compliance with established policies, periodic evaluation of the ESR system, and representing an opportunity for obtaining feedback on the overall program effectiveness or any procedural modifications that may need to be considered.

An MOU is one of the most important first steps in defining the roles and responsibilities of all ESR system stakeholders. The development of the MOU is a shared responsibility of stakeholders and should clearly define:

- Reporting process
- Eligible reporters
- Reporting process/procedures
- Criteria for report acceptance
- Reporting forms or platforms available
- Time limits for reporting an event
- Confidentiality and anonymity
- Protection from discipline, with criteria

- Use of ESR system data
- Corrective action development, institution, and dissemination
- Stakeholder responsibilities
- ESR system modifications
- ESR system or process duration
- Record keeping
- Funding for supporting the system and mitigation strategies
- Responsible officials

Stakeholders may also provide process oversight and monitoring functions to the ESR system. Oversight can include monitoring to ensure report analyses are conducted effectively and accurately and maintaining that all reports remain non-punitive (unless determined the safety issue is the result of intentional non-compliance).<sup>40,41</sup> This oversight and monitoring should be prescribed in the MOU. Maintaining the functions of the MOU is the responsibility of all stakeholders, as it creates trust for all persons using the ESR system.<sup>42</sup>

### ***Strategies for Collecting and Managing Data***

The research suggests that data collected through an ESR system should remain confidential to maintain reporter confidence. However, other elements are important in the collection and management of the data, such as using third-party collectors and reviewers (when determined necessary or if transit agencies have limited personnel resources), collecting the right information, addressing gaps, conducting interviews with employees and other stakeholders, providing feedback, ease of reporting, and use of data. Each of these elements is discussed in more detail.

### ***Data Protections***

In a discussion of data management, data protections should be addressed. For organizations and transit agencies that use BTS, such as BSEE and WMATA, data are protected through the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), Public Law 107-347, promulgated at 44 U.S.C. § 101. However, transit agencies that collect close call or near-miss data, even those that do so under confidential methods, may not have these same protections.

TRB's Special Report 326, *Admissibility and Public Availability of Transit Safety Planning Records*,<sup>43</sup> discusses evidentiary protections for safety planning records, which includes ESR data collected and maintained by public transportation agencies through SMS practices performed in accordance with the requirements of 49 U.S.C. § 5329. The objective of the project was to evaluate and provide recommendations on whether it is in the public transportation industry's interest to withhold from civil litigations all records collected in compliance with these requirements. The committee recommended that evidentiary protections be extended to public transportation agencies. Further, the committee provided a specific recommendation to the U.S. Congress:

Congress should prohibit, by establishing an admissibility bar, the introduction of the records generated by public transit agencies in fulfilling the safety planning requirements of MAP-21 into legal proceedings. This bar should apply only to data, analyses, reports, and other similar information prepared in response to or used in support of the MAP-21 mandate and FTA's corresponding safety program requirements.<sup>44</sup>

An additional recommendation to Congress established that if this prohibition was approved, an assurance would be included that the bar could not be waived on a "record-by-record" or "lawsuit-by-lawsuit" basis. The committee recommended that states be allowed to opt out through the enactment of State law applicable to public transportation agencies.

### *Collecting the Right Information*

It has been established that the contents of employee safety reports collected remain confidential and non-punitive to maintain trust and develop a just safety culture within an organization. However, what kind of data should an organization collect? In *Building Toward a Strong Safety Culture within the Bus and Rail Transit Industry* and *Just Culture*, both authors state that, whereas a non-punitive ESR system focuses mostly on close calls, employees can identify any issue they feel hinders safety.<sup>45,46</sup>

Dekker further explains that while it is easy to instruct employees to report everything, the question of how data should be reported still remains. An event or situation that one employee does not see as a hazard potentially could be related to or cause a hazard, leading to a much larger problem in the future. The book goes on to describe that every report is a judgment made by the reporter, based on experience, normalizing safety issues, or uncertainty. Ultimately, Dekker concluded that the ethical obligation in what kind of data to report is "If in doubt, report."<sup>47</sup>

The question of what information should be collected ultimately depends on the MOU between all parties. WMATA's C<sup>3</sup>RS MOU (included in Appendix C) states that the only criteria for reporting is that the employee submitting the report provide enough detailed description about an event that BTS can investigate and evaluate the situation effectively.<sup>48</sup> The level of information collected through an ESR system should be sufficient to correct the safety issue at hand and sustain the improvements made.<sup>49</sup>

TRACS 14-02 Letter Report recommends transit agencies begin investigations by collecting all objective information possible without the need to contact the reporter and then quickly reaching out for any additional information from the reporter, if self-identified, as necessary after the initial report.<sup>50</sup> The information collected needs to lead to the right conclusion for past event(s), and be used to conduct "health checks" to prevent future events of a similar type.<sup>51</sup> When determining the right data to collect, it is also important that data elements are well-

defined and understood among agency personnel to provide accurate baseline and temporal analyses. TRACS Final Report 16-02, *Safety and Performance Measures in Transit*, lists the following minimum information metrics (data) that transit agencies should collect:

- Date and time
- Weather
- Pavement and light condition
- Geographic location
- Property damage
- Number of injuries/fatalities
- Number vehicles and/or pedestrians involved
- Type of vehicle(s) involved
- Preventability<sup>52</sup>

A NASA ESR sample report form includes:

- Name and personal address
- Event type
- Personnel involved
- Event location
- Job function (engineer, dispatcher, trainee, etc.)
- Years of experience
- Time of event
- Weather at the time of the event
- Visibility at time of event (or obstruction, if applicable)
- Type of operation
- Rules in effect, including operating rules
- Vehicle activity
- A description of the event or situation<sup>53</sup>

From here, statistical analyses, correlation studies, trending, and performance measurements can be studied and reviewed.<sup>54</sup>

In summary, transit agency policies and procedures should prescribe and define the data elements that should be collected in support of agency-established performance measures. The examples above include common metrics.

### *Addressing Data Gaps*

Lack of time, writing ability, and motivation are some of the contributing factors present when there is no or limited reporting or when employees submit reports that do not sufficiently articulate the observed or experienced hazard or event. “Developing an Effective Corrective Action Process: Lessons Learned from Operating a Confidential Close Call Reporting System”

introduces five strategies designed to help address gaps in reports and give better insight, explanation, and context for decisions and actions by employees:

- Working with a third party to improve the quality of the reports
- Developing standardized questions on particular topics for the third party to ask
- Having a method for the reporter to submit supplemental information
- Reaching out to everyone involved in a close call event to report
- Requiring report submission by the individual in order to receive non-punitive protection<sup>55</sup>

Hile et al. suggest using a third-party as a strategy to improve the quality of reports and recognize that not all transit agencies use one, nor are they required to do so. Dekker states that any review process should include staff who are impartial to the situation.<sup>56</sup> Using a third party is one way to ensure every report is reviewed in an impartial manner.<sup>57</sup>

### *Conducting Interviews*

Interviews are a method used to close gaps during analysis efforts.<sup>58</sup> Whereas maintaining confidentiality is key, interviews may be necessary to gather more information to determine the validity of a report.<sup>59</sup> Interviews allow for clarity outside the structure of a written form and also offer another form of standardization, in which responses can be coded and analyzed to identify trends within the overall culture of the organization.<sup>60</sup> Interviews open the opportunity for supplemental materials to be submitted, such as maps, photographs or other images, and written documentation.<sup>61</sup>

### *Providing Feedback*

Whether gathered in-house or through a third party, feedback has the ability to encourage employees to continue the reporting process.<sup>62</sup> Sharing the analysis results and the implemented corrective action(s) fosters the ability to maintain trust in the non-punitive ESR system and may provide incentive to maintain the implemented corrective action(s). Publicizing feedback also provides opportunity for peer transit agencies to learn about identified safety issues and how they are addressed.<sup>63</sup> It is important to note, however, that feedback is only one necessary element of a successful non-punitive ESR system; providing feedback only likely will not lead to improving conditions.<sup>64</sup> There should be active, demonstrable engagement with the data collected and feedback given to explain why safety actions were taken and why safety procedures have changed.<sup>65,66</sup>

### *Ensuring Ease of Reporting*

*Managing the Risks of Organizational Accidents* identifies the characteristics of the reporting mechanism as one of the most important factors in collecting and managing data, which include the format, length, and content of the reporting form.<sup>67</sup> NASA's Close Call Reporting System features both an electronic report submission and a mail-in paper form, providing options for what the reporter is most comfortable with while also maintaining confidentiality.<sup>68</sup> The author states that there should be only a limited number of questions directed to the

incident that occurred; others should seek to determine if the event was related to “missteps,” employee error, or misleading or ineffective guidance.<sup>69</sup>

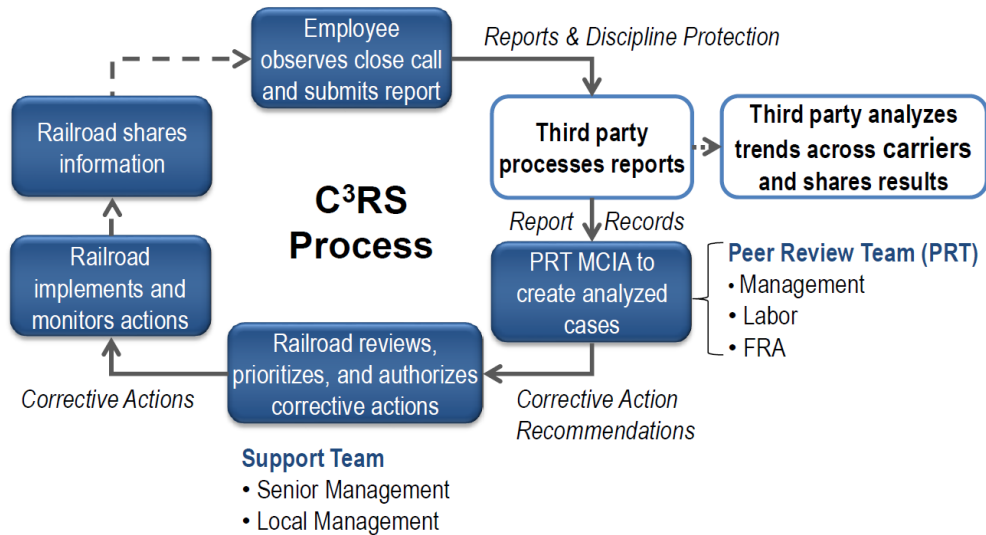
### **Analyzing Data**

To act on any report submitted, the data must be reviewed. Hanssen et al. present two methods of data analysis in *Confidential Close Call Reporting in the Railroad Industry: A Literature Review to Inform Evaluation*. The first method is qualitative, focusing on the cause, severity, consequences, and how it was avoided. The second focuses on trends over time; however, it is noted by the authors that this type of analysis is dependent on the first to create a case record. The second method, through expanded analysis, focuses on a specific period of time, allowing reports to be coded to find trends and allowing reviewers to take a more quantitative approach to analysis, creating statistics, and frequencies of issues.<sup>70</sup>

### **Use of Third Parties**

A strategy employed in confidential ESR systems is the use of a third party to collect data, perform an impartial analysis of all hazard reports, and ensure confidentiality.<sup>71</sup> BTS served as FRA’s initial third-party reviewer for its C<sup>3</sup>RS program, a role now performed by NASA. FRA’s original pilot implementation sites included Union Pacific’s North Platte Service Area, Canadian Pacific’s Chicago service area, and New Jersey Transit and Amtrak. FRA has extended the program and, as of 2019, nine passenger rail carriers are participating in the program (Amtrak, Long Island Railroad, MBTA/Keolis, Metra, Metro-North, New Jersey Transit, North County Transit District [NCTD], SEPTA, and Denton County [Texas] Transportation).

An MOU was negotiated among labor, management, and FRA for each C<sup>3</sup>RS location defining those close call events included within the program scope, requirements for confidentiality, and the obligations and commitments of all parties. The MOU established the roles, responsibilities, and reporting parameters for the program to “identify why close calls may occur, recommend corrective action, and evaluate the effectiveness of any such action that was implemented” (Appendix C includes FRA C<sup>3</sup>RS MOUs with SEPTA, MBTA, and New Jersey Transit). Through the ESR system, close calls can be reported confidentially, and reported events are addressed by Peer Review Teams (PRTs) consisting of representatives from labor, management, and FRA.<sup>72</sup> For any reports made, the third-party reviewer determines if the report meets minimum qualifications (established in the MOU). Figure 5 illustrates FRA’s current C<sup>3</sup>RS program reporting and follow-up processes.<sup>73</sup> NASA redacts all identifying information before it is distributed to the employer.<sup>74</sup>



Source: Volpe, *Confidential Close Call Reporting System (C³RS) Lessons Learned Evaluation – Final Report* (DOT/FRA/ORD-19-01), 2018.

**Figure 5. Confidential Close Call Reporting System**

In 2010, FRA and NASA signed an interagency agreement assigning NASA as the third-party administrator for Amtrak; since that time, FRA has transitioned the administration of all C³RS locations to NASA. NASA uses a similar process to that established through BTS but also modified the process based on its administration of the ASRS, the system that collects aviation safety incident and situational reports submitted by pilots, controllers, and others.<sup>75</sup>

As noted previously, BTS and BSEE signed an MOU establishing a near-miss ESR system for the offshore industry. SafeOCS is a voluntary and confidential reporting system that provides industry operators and employers a method to share information related to equipment failure and safety data. BTS shares aggregated data with the public through its website. Data are also used to identify safety trends and increase the understanding of offshore risk.<sup>76</sup> BTS first began collecting data on equipment component failures reported through the ERS system in December 2016.

Although too early to determine the success of the program in reducing safety risks in the industry, the *Oil and Gas Production Safety System Events 2017 Annual Report*<sup>77</sup> summarized the first full year of reporting that included 112 SPPE failures from 9 of 59 Gulf of Mexico production operators, representing 35 percent of active wells and 40 percent of total oil production in the Gulf of Mexico.<sup>78</sup> As summarized in the 2017 Annual Report, while the majority of these failures were attributed to internal leakages (88%), which pose less risk, the thoroughness of the reporting provided by the nine operational units reflects conformance with the required reporting and, more importantly, demonstrates the industry’s heightened focus on prevention.

Implementing a non-punitive ESR system through an independent third party could be a valuable option for transit agencies for whom safety culture is in its infancy. They can ensure confidentiality, provide an impartial analysis of the reported hazard or event, and protect the reporter from punitive measures or retaliation by the agency, directors, supervisors, or other employees. The use of a third party may remove any real or perceived barriers to procedural fairness and increase employees' willingness to report.

### ***Procedural Fairness for Employees***

Human resource, public policy, political reform, and justice-related research examine the topic of procedural fairness and are consistent in the underlying platform on which their definitions are based. For this report, procedural fairness is described as “the systematic development of processes and procedures, employees’ understanding of the process, and management’s compliance with and execution of those processes and procedures without prejudice to the individual or the process, ensuring effective and fair outcomes.”

Procedural fairness is one of the main factors in successful non-punitive ESR systems and may lead to a greater level of trust among employees. Procedural fairness will be reflected in the transparency of the process, the ability for all employees to participate (regardless of position) and be notified of the outcome of safety events or conditions reported, and the protection from punitive actions, retaliation, or discrimination granted through the program. To maintain a level of fairness, several sources cite strategies to maintain trust in the ESR system.

One strategy is the development of a rubric that contains values and definitions to ensure implementation can occur consistently across all sites or units, allowing results that are objective and observable. A rubric would include standards for reporting and process statements with the goal of ensuring fairness to the reporter. A rating system for the hazards or events reported, with corresponding actions, could be developed that would assist an established review team or other investigative unit review and rate each hazard, compare ratings, and prioritize actions.<sup>79</sup>

Even though an ESR system is non-punitive, it may not establish that all reported behavior is acceptable.<sup>80</sup> Every non-punitive ESR system should have an established formal policy and corresponding implementing procedure that clearly defines the types of protections that are being afforded by reporting and how identifiable information will be used.<sup>81</sup> “Fair treatment of employees also requires fairness and consistency in dealing with rule violations. When rule violations occur, there should be a fair appeals system in place to dispute them in case of a disagreement.”<sup>82</sup> Employees should be made aware of what is punishable when there appears to be blatant disregard for rules or when it is determined to be intentional or due to negligence.<sup>83</sup>

## **Examples of Non-Punitive Employee Safety Reporting Systems**

Examples of functioning non-punitive ESR systems or associated pilots illustrate their use in a real-world setting and the application of what has been presented in this literature review. In general, formal non-punitive ESR systems within U.S. public transit agencies are still in their infancy; thus, additional examples are provided from other transportation modes and non-transportation industries. The following section presents the scalability of these types of ESR systems through examples. A summary of the ESR systems of public transportation agencies selected as case studies for this report is included in Chapter 3, and comprehensive case study discussion is included in Appendix A.

### ***Aviation Safety Reporting System (ASRS)***

FAA implemented the Aviation Safety Program in 1975 in response to high-profile aviation accidents. In 1976, the ASRS was established through an MOU between the FAA and NASA, the third-party administrator of the safety reporting system. The ASRS is a voluntary reporting system in the aviation industry available to pilots, air traffic controllers, dispatchers, cabin crews, maintenance technicians, and others. Initially, approximately 400 safety reports were submitted per month; as of July 2019, reports have increased to more than 8,251 per month.<sup>84</sup>

Reports can be submitted electronically or can be mailed to NASA's Moffett Airfield Post Office in Mountain View, California. Once received, reports are dated and time-stamped, and ASRS analysts screen each report submitted within three working days to categorize and determine the next steps in the process. If a hazardous situation is reported, the analyst may issue an alert message and provide information, scrubbed of reporter detail, to the subject organization for further evaluation and corrective action. If clarification or further detail are needed, an analyst will contact the reporter by telephone to clarify.

Reports go through a number of steps, including a "Final Check" to ensure accuracy. NASA includes initial and subsequent documentation in the final event record after all personally identifiable information has been removed from the report. ASRS uses this information as the source for Alert Messages (alert bulletins or information notices) and for information included in its monthly safety newsletter *CALLBACK*, the *ASRS Directline Journal*, aviation safety research, etc. A category of review called "Quick Response" initiates a rapid data analysis process for reports of immediate operational importance.

### ***Bureau of Safety and Environmental Enforcement – SafeOCS***

As noted, BSEE established SafeOCS as a voluntary program for confidential reporting of near misses in the offshore oil and gas industry occurring on the outer continental shelf (OCS). In 2013, BSEE conducted outreach events with the industry and offshore workers, followed by public workshops on the reporting system. Volunteers were used to test the online reporting forms and associated interview procedures before institutionalizing the system. In 2016, BSEE, working with the BTS, expanded the program to collect equipment failure and blowout prevention system safety event data. BTS's responsibilities include:

- Collecting, owning, and protecting submitted confidential near-miss reports
- Aggregating and statistically analyzing submitted information, using BTS subject matter experts
- Identifying trends, emerging safety/environmental concerns, and potential causal factors of near-miss incidents
- Developing aggregated statistical reports and making them available to the public, in accordance with Office of Management and Budget (OMB) statistical policy directives<sup>85</sup>

Employees or other industry representatives can create an account and register through the reporting system. Those with accounts can report near-misses through the program website at [www.safeocs.gov](http://www.safeocs.gov). Once BTS receives the reports, it evaluates and analyzes information submitted through the reporting system and presents aggregated results to stakeholders.

SafeOCS has been actively collecting data only since early 2017; thus, there is little to information to provide to quantify the benefits of the program. However, as noted, the reporting system has been effective in providing a platform for the industry and its employees to report near-misses and equipment failures. The 2018 Annual Report documented the successes of both equipment failures and blowout prevention components of the program reflected in increased reporting and utilization of data collected through the reporting that the industry can use to correct existing safety concerns.

### ***Federal Railroad Administration C<sup>3</sup>RS***

Researchers detailed FRA's C<sup>3</sup>RS program previously in this report and noted opportunities for public transportation agencies to considering when framing their programs. As noted, several passenger rail agencies are participating in the program, including New Jersey Transit, and MBTA and SEPTA, which are included as case study sites for this research.

#### ***New Jersey Transit (NJT)***

In 2009, NJT piloted an FRA-sponsored non-punitive close call ESR system for their rail operations on which it owned tracks. The ESR system enabled 1,700 employees to report close call or safety issues. In the Davey et al. *Lessons Learned* evaluation of FRA's C<sup>3</sup>RS program, the research team conducted a study of FRA's program, including the NJT ESR system. The authors report that from the beginning of the research period in October 2009 and the 18 months that followed, NJT labor and management submitted 812 responses to submitted reports, which were analyzed using Atlas.ti software.

While the report does not single out NJT in their conclusions, which also include Amtrak, Union Pacific North Platte Service, and the Canadian Pacific Chicago Service Area Road Territory, the authors found that both labor and management were committed to using the ESR system and were willing to commit the time needed for the system to be a success.<sup>86</sup> Conclusions identified the necessity of ESR agency-wide support and cooperation from all stakeholders. Additionally, they found that low reporting rates do not necessarily indicate poor implementation. Areas

identified for improvement include communication, analysis, efficiency, and the method and process to track corrective actions.<sup>87</sup>

### ***Federal Transit Administration***

The PTASP regulation at 49 C.F.R. Part 673 includes a requirement for public transit agencies to develop an ESR program in support of the PTASP. In the Safety Management Policy requirements included in §673.23(b), transit agencies must:

- Establish and implement a process that allows all employees, including contractors, to report safety conditions to senior management
- Specify protections for employees who report safety conditions
- Describe employee behaviors that may result in disciplinary actions and, therefore, would not be covered by protections.

ESR program requirements are also included within Safety Assurance (§673.27(b) and Safety Promotion (§673.29(b)), which require transit agencies to monitor information reported through any internal ESR program and inform employees of safety actions taken in response to reports submitted through the program.

FTA-developed guidance to the industry provides the characteristics of both a “Good Employee Safety Reporting Program (ESRP)” and “Good Safety Culture”:<sup>88</sup>

- “Good ESRP”
  - Management’s commitment
  - Safety is everyone’s responsibility
  - Clear safety roles for each individual
  - Empowered employees
  - Staff involved in ESRP planning process
  - Culture of learning from past mistakes
- “Good Safety Culture”
  - Culture of learning
  - Flexible/adaptable
  - Flexible organizational structure
  - Both managers and operators should be informed
  - Organizational factors
  - Trust is essential

As noted, FTA is conducting an SMS Implementation Pilot Program with four public transit agencies that includes the establishment and implementation of an ESR system at each of these transit agencies. The pilot includes CTA and transit services of Frederick County, Montgomery County, and Charles County, Maryland, and serves to provide SMS implementation guidance to the public transportation industry, including the importance of employee safety reporting in

both the SMS safety risk management and safety assurance functions. CTA is included as a case study for this research. The three Maryland pilot locations, which are in their infancy, are also discussed in Appendix A.

### ***National Air Traffic Controllers Association (NATCA)***

NATCA's Air Traffic Safety Action Program (ATSAP) is modeled after FAA's Aviation Safety Action Program (ASAP) and includes a voluntary non-punitive safety reporting system for air traffic controllers and other employees. An MOU between FAA and NATCA identifies the reporting standards. Similar to the ASRS, employees may submit reports to ATSAP's website and program analysts review each submittal and remove any identifiable information. An ATSAP Event Review Committee (ERC) comprising a member of FAA's Air Traffic Organization Management, a NATCA representative, and a member of FAA's Air Traffic Safety Oversight Service, evaluates each report submitted and determines if it meets the requirements established through the MOU. If the report meets the standards prescribed, the ERC accepts the report and logs it into the ATSAP.

During the review process, the ERC also reviews each report to identify actual or potential problems and causal factors. They also assess severity using the Air Traffic Organization's (ATO's) Safety Risk Management Risk Assessment Matrix to determine the event severity and appropriate response.<sup>89</sup> The ERC may prescribe training or may refer an individual to a union professional standards program. They, or the ATSAP analysts, may also request additional information from a facility, service unit, or office to supplement report contents. The ERC may also make a formal Corrective Action Request to resolve a reported safety concern, and recipients should provide a corrective action plan in accordance with the timeline established in the request.

The program provides employee protections from punitive or disciplinary action for those personally involved in the safety events. Safety areas reported are tracked to identifying any systemic industry trends.<sup>90</sup> The program provides a feedback loop to the reporter. The NATCA considers the safety reporting system a success and feels reporters are comfortable submitting information because they know all information submitted is confidential and non-punitive.<sup>91</sup>

### ***Occupational Safety and Health Administration (OSHA)***

The Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 and 29 C.F.R. Parts 1900 to 2400) grants employees and their representatives the right to file a complaint and request an OSHA inspection of their workplace if they believe there is a serious hazard or their employer is not following OSHA standards. The act also establishes the employee's or other complainant's right to request their name not be revealed to their employer. Employees may submit a confidential complaint form through an online portal (<https://www.osha.gov/pls/osha7/eComplaintForm.html>), they may submit an OSHA complaint form via fax or by mail, or they may call the local OSHA regional or area office. Training videos,

in Spanish and English, are included at [https://www.osha.gov/workers/file\\_complaint.html](https://www.osha.gov/workers/file_complaint.html) and cover how to file a complaint and the rights of workers to report.

If an employee feels their employer has retaliated or taken punitive action against them, OSHA provides instructions on how to file a whistleblower complaint at [https://www.whistleblowers.gov/complaint\\_page](https://www.whistleblowers.gov/complaint_page). Procedures for OSHA's investigation of these complaints are provided in the *OSHA Whistleblower Investigations Manual*.<sup>92</sup>

### ***U.S. Nuclear Regulatory Commission (NRC)***

NRC established the Allegation Program where employees or the public can report safety concerns. Safety concerns may be potential or actual safety issues associated with the NRC's jurisdiction, including, but not limited to, the areas of design, construction, operation, maintenance, radiation protection, safeguards, security, emergency preparedness, harassment, intimidation, retaliation, discrimination, wrongdoing, a work environment that discourages workers from raising safety concerns, and other matters related to NRC-regulated activities.<sup>93</sup>

Reports may be submitted by email to [allegation@nrc.gov](mailto:allegation@nrc.gov) or on NRC's Safety Hotline at 1-800-695-7403. NRC's Allegation Program protects the identity of reporters. Once a report has been received, it is assigned to an Allegation Coordinator, who is responsible for communicating with the reporter and arranging for the investigation and evaluation of the concern by NRC employees and managers who serve on the Allegation Review Board (ARB). The ARB reviews the reported concern and issues a preliminary determination. They also determine if feedback from other agencies is needed to complete the investigation. The Allegation Coordinator documents all actions taken in response to a report and provides updates and the final investigation report to the reporter once the process concludes.

Although NRC makes all "reasonable efforts" to protect the identity of a reporter, they do not provide the same protections to employees as those found in the programs managed through NASA or BTS. If an employee feels they have been discriminated against due to the submission of an allegation, they can have the case investigated by NRC's Office of Investigations or may seek personal remedies from the U.S. Department of Labor.

### **Scalability**

The scalability of a non-punitive employee safety reporting system is explored in several of the materials examined in the background research. FTA's monthly newsletter, *Transit Safety and Oversight Spotlight*, stated that FAA selected NATCA to present their day-to-day operation and implementation of the ESR system to CTA because the membership of NATCA is of similar size to CTA's union membership.<sup>94</sup> However, NATCA and CTA are still very large organizations when compared to many transit agencies throughout the United States.

For smaller urban and rural public transportation agencies, the National Rural Transit Assistance Program (National RTAP) has a one-page policy template that includes objectives, non-penal statements, and commitment to safety.<sup>95</sup> There are also examples in the case studies of smaller

transit agencies that have successfully implemented non-punitive ESR systems that are not procedural heavy or supported by advanced reporting methods. There are opportunities to implement ESR systems scaled to the local agency's profile and operating environment. The framework established by each agency should reflect scaled agency-appropriate and specific needs.

## **Framework of a Non-Punitive Employee Safety Reporting System**

For a non-punitive ESR system to be effective, governance, strategies, and reviews are necessary in written form and agreed upon throughout the organization by those who will be affected by it. This section presents policies, procedures, mitigation and response strategies, performance measures, and lessons learned found in the literature.

### ***Policies and Procedures***

TRACS Working Group 16-01, in its report *Building Toward a Strong Safety Culture within the Bus and Rail Transit Industry*, makes it clear that a non-punitive ESR system does not mean all behavior is acceptable. Policy should clarify that any blatant disregard for safety precautions will still result in disciplinary action.<sup>96</sup> WMATA's C<sup>3</sup>RS MOU, as an example, includes the criteria for what does not meet the reporting criteria.<sup>97</sup> Confidentiality should also be a policy with all reporting and "... sufficient care should be taken to establish the proper legal basis for the maximum protection of the pilot system's confidential data." Once confidentiality is breached, the trust employees have in the ESR system will be forever lost.<sup>98</sup> To ensure confidentiality, it is good practice to employ an impartial third-party reviewer to receive, process, and investigate reports.<sup>99</sup>

Policies and procedures should address, at a minimum:

- Methods to report
- Step-by-step process from original receipt through the development and implementation of corrective measures
- Timelines for each process step
- Membership and roles of committees, peer review teams, and investigators involved in the program
- Collective bargaining unit participation in the process
- Investigation process that demonstrates the involvement of multiple players from across the agency
- Feedback to reporters, from initial receipt of the report through the process and once the hazard has been corrected – both for those who included contact information and for anonymous reporters
- A written agreement, which could be included as part of the CBA or the agency policy, that reporters can remain anonymous and if contact information is provided, there will be no punitive actions taken or any form of intimidation or harassment
- Precise statement of what is and is not considered non-punitive

- Method to allow a reporter to challenge or appeal the outcome of the investigation or the corrective action taken
- Process disseminating hazards reported and corrective actions
- Performance measurement
- Periodic process and program evaluation, including obtaining employee input

### ***Response and Mitigation Strategies***

As reflected above, it is important to clearly identify what should be reported and have a process for responding to and mitigating reported concerns. *Just Culture: Balancing Safety and Accountability* states that one of the best strategies for response and mitigation of any safety issue is to report everything.<sup>100</sup> “Any condition or event that is perceived as potentially endangering employees, the public, equipment, or the environment” should be reported.<sup>101</sup>

Once reported, response and mitigation efforts should follow a well-defined framework. As indicated previously, this starts with the acceptance of a report submitted in accordance with the agency’s policy, which should include reporting criteria, including the level of detail and thoroughness required. It follows the procedural aspects of the ESR system:

- A thorough examination of the report contents
- A formal investigation through the process established in that policy or procedural document
- An SMS process that examines the reported hazard, develops mitigation strategies in response to a report, and provides effective evaluation of the strategy employed to ensure unintended consequences are not present
- A communication strategy to inform employees of the steps taken to correct the hazard

### ***Performance Measures***

TRACS working group 16-02, Safety Data and Performance Measures in Transit, established a list of eight characteristics of good safety performance measures. Safety performance measures should be:

1. Quantifiable
2. Representative of what is being measured
3. Consistent throughout
4. Detectable despite changes in behavior or environment
5. Efficient
6. Easily understood in analysis
7. Capable of quality control
8. Have a manageable set of measures, metrics, and indicators

TRACS working group report 16-01, Building Toward a Strong Safety Culture within the Bus and Rail Transit Industry, lists three leading indicators to monitor and manage performance and safety culture in an organization: assessment of actions, behaviors, and process. They suggest

that promoting positive safety culture changes in an organization should focus less on being reactive to safety issues and being proactive in informing and creating a safety culture.<sup>102</sup>

TRACS working group 11-01 created a list of 13 “substantive outcomes” for non-punitive ESR systems that should be included in a program’s evaluation criteria and supported by corresponding metrics. These outcomes include:

- Safety improvement – the reduction of hazards and risks
- Identification of hazards that otherwise may not have been reported
- Extent of change in the completeness of close call and safety issue reports
- Extent of change in the number of close call reports
- Extent of change in the number of follow-up reports to close call reports
- Extent of change in the reporting of other safety issues
- Ability to determine hazard pervasiveness – unique, pervasive, increasing
- Collection of hazard information useful for remedial action for either a single instance or emerging trend
- Expansion of safety information pool – those who engage in safety improvement and development
- Future actions taken to reduce identified hazards
- Participation of all members of the organization in hazard identification and reduction
- Empowerment of members who otherwise might think it futile or personally harmful
- Overall safety performance in terms of injuries and events<sup>103</sup>

FAA’s ASRS collects and reports the following “significant items” (quantities reflect the total number of events, reports, and activities that have occurred from the inception of the program in January 1981 through December 2018):

- Number of incident reports received (1,625,738 incident reports)
- Safety Alert Messages – issued to organizations in “positions of authority” for evaluation and possible corrective actions (6,515 safety alerts)
- Quick Responses – rapid data analysis by ASRS staff that are of immediate operational importance, generally limited to governmental agencies (144 quick responses)
- *CALLBACK* – a monthly newsletter that provides lessons learned to the industry (467 issues)
- *ASRS Directline* – published periodically to meet the needs of operators and flight crews of complex aircraft; articles cover topics reported through the ASRS that analysts have categorized as significant
- Research studies – focus reports that cover safety topics of interest in cooperation with aviation organizations<sup>104</sup>

Seminal to establishing and tracking performance measures and proactively responding to areas of risk is the collection and maintenance of a granular, robust data set, as discussed previously. This can present challenges to maintaining reporter confidentiality or anonymity.

## Third-Party Management and Report Collection

One of the strategies employed in confidential ESR systems is the utilization of a third party to collect data. Third-party data collection and management allow for an impartial analysis of all hazard reports and ensures confidentiality.<sup>105</sup> Although third parties do not administer all non-punitive ESR systems or structures, researchers did examine this topic through the literature review and case studies. There are third parties administering several long-standing ESR systems, including one that provides data disclosure protections through Federal law. Reporters who submit through the U.S. DOT's BTS, including BSEE and WMATA as examples, are covered under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), Public Law 107-347, promulgated at 44 U.S.C. § 101. CIPSEA protections include:

- No government agency may require, for any reason, a copy of a respondent's report.
- Court cannot require a copy of any respondent's report.
- Reports are immune from the legal process and cannot be admitted as evidence.
- Reports are exempt from Freedom of Information Act (FOIA) requests.
- Information may not be disclosed in identifiable form for any non-statistical purpose without the informed consent of a respondent.

The literature review conducted for this study included an examination of well-established and formally structured non-punitive ESR systems that use third parties. As discussed previously, since 1976, NASA has operated FAA's Aviation Safety Reporting System (ASRS). According to NASA's Program Briefing documents, the ASRS program "receives, processes, and analyzes voluntarily submitted incident reports from pilots, air traffic controllers, dispatchers, cabin crew, maintenance technicians and others." Reporters may describe both unsafe occurrences and hazardous situations. The ASRS program is voluntary, confidential, and non-punitive.

In 2010, FRA and NASA signed an interagency agreement assigning NASA as the third-party administrator for Amtrak; since that time, FRA has transitioned the administration of all C<sup>3</sup>RS locations, which now includes nine passenger rail carriers, to NASA. FRA and labor and management representatives negotiated a MOU for the C<sup>3</sup>RS locations, as described earlier, defining those close call events included within the program scope, requirements for confidentiality, and the obligations and commitments of all parties. NASA determines if the report meets the review qualifications and, if so, follows up with the reporter and informs them of the outcome of any corrective actions or mitigation measures. All identifying information is redacted before provided to the agency.

Two of the case study transit agencies summarized in the next chapter, MBTA and SEPTA, participate in FRA's C<sup>3</sup>RS program for their commuter rail systems.

## Summary

As established through the literature review, there are many characteristics of and considerations that should be made in the design, implementation, and management of an ESR

system. Stakeholders should be a part of ESR system development and implementation and should trust that the ESR system, as designed, protects their anonymity (when necessary) and ensures that hazard reporting can be made with impunity and without fear of retribution. There are benefits to the implementation of a non-punitive ESR system that include improved system safety, safety risk abatement, and the resultant decreases in injuries and fatalities.

Implementing a non-punitive ESR system through an independent third party could be a valuable option for transit agencies for whom safety culture is in its infancy. They can ensure confidentiality, provide an impartial analysis of the reported hazard or event, and prevent the reporter from punitive measures or retaliation by the agency, directors, supervisors, or other employees. The use of a third party may remove any real or perceived barriers to procedural fairness and increase employee willingness to report.

The literature review and background research established data-supported leading practices that are central to the ASRS, C3RS, SafeOCS, OSHA, NATCA, and NRC ESR systems that include:

- **Investigation and corrective actions** – structured and comprehensive examination of reported hazards or near-misses based on defined reporting parameters
- **Notification of hazard and dissemination** – a formal approach to dissemination of reported hazards, close call events and mitigation strategies
- **Online reporting system** – research indicates that online reporting systems provide greater access to affected employees and provide both perceived, and in some cases, real anonymity
- **Protection from punitive actions** – the literature documents the successes achieved when employees are protected from punitive actions. This success is reflected in significant growth in employee reporting in several national ESR systems.

For example, a 2018 presentation of Volpe’s 2017 study of FRA’s C<sup>3</sup>RS showed that since implementing a confidential close call reporting system, derailments have been reduced 20-40 percent across three sites, transportation-related injuries fell by 18 percent at one site, and two sites saw 39–90 percent fewer disciplinary hearings (specific pilot locations were not disclosed).<sup>106</sup> The authors attributed the reduction in derailments to the corrective actions taken in response to employee reports and the level of reporting that now exists due to the protection against punitive actions granted to employees.

Since FAA implemented the ASRS, reports have grown from 400 safety reports submitted per month to over 8,200 safety reports per month in 2019. Similar increases are reported by other systems such as C<sup>3</sup>RS and NRC. Research suggests this growth can be attributed to online reporting, protections granted to employees, and the notifications and safety improvements made in response to those notifications.

Organizations that have established MOUs with BTS have seen successes through both the confidentiality of the ESR system and industrywide information-sharing. As an example, BTS

first began collecting data on the offshore oil and gas industry equipment component failures in December 2016. The *Oil and Gas Production Safety System Events 2017 Annual Report*<sup>107</sup>, summarized the first full year of reporting that included 112 SPPE failures from 9 of 59 Gulf of Mexico production operators, which were shared with the industry. These 9 operators represent 35 percent of active wells and 40 percent of total oil production in the Gulf of Mexico.<sup>108</sup> As summarized in the *2017 Annual Report*, the majority of these failures were attributed to internal leakages (88%), which pose less risk but speak to the effectiveness of the information dissemination and the utility of the ESR system.

Nineteen case study public transportation agencies are a part of this research project and illustrate common practices reported as successful by those transit agencies. The findings from these case studies further illustrate and validate the findings from the literature review. Chapter 3 provides a summary of these case studies, with complete narratives included in Appendix A.

## Chapter 3 – Public Transportation Agency Case Studies

### Process

As an initial outreach effort, the research team distributed a 22-question survey (included in Appendix B) via email to 19 transit agencies (shown in Table 1) to gain a general understanding of the ESR policies and/or programs at those transit agencies. The research team contacted four additional transit agencies that were not included in this research effort due to a lack of established policies or procedures related to employee safety reporting.

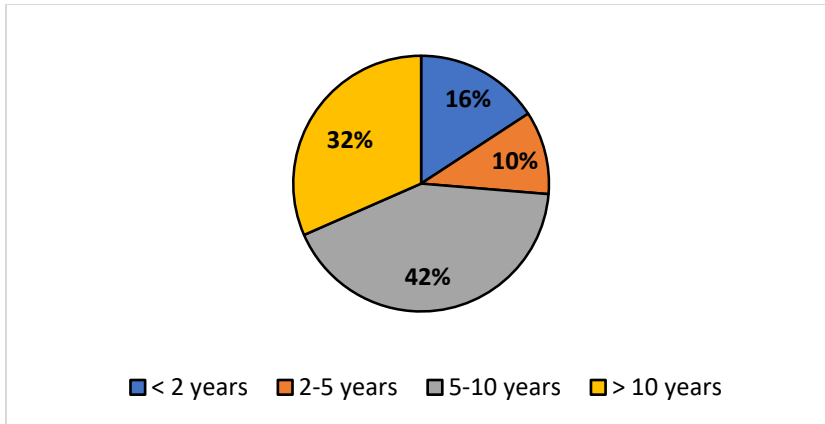
The transit agencies that are included in this study have ESR systems of varying maturity levels, ranging from less than 1 year to over 20 years, as presented in Figure 6. The methods by which safety hazard reporting can occur include hard copy forms, online submissions through apps, intranet, or email, and through the phone via hotlines, texts, or voicemail (Figure 7). Many of the respondent transit agencies have multiple methods available to report hazards, thus the summations of the reporting methods available exceed 100 percent.

**Table 1. Transit Agencies Included in the Study**

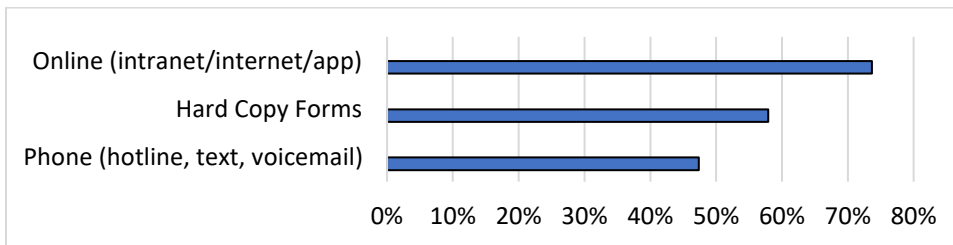
Transit Agency	Location
Big Blue Bus	Santa Monica, California
Capital Metro Transportation Authority	Austin, Texas
Central Florida Regional Transportation Authority, d.b.a. LYNX	Orlando, Florida
Chicago Transit Authority (CTA)	Chicago, Illinois
Greater Cleveland Regional Transit Authority (GCRTA)	Cleveland, Ohio
Jacksonville Transportation Authority (JTA)	Jacksonville, Florida
King County Metro	Seattle, Washington
Lane Transit District (LTD)	Springfield, Oregon
Lee County Transit (Lee Tran)	Fort Myers, Florida
Los Angeles County Metropolitan Transportation Authority, (LA Metro)	Los Angeles, California
Maryland Transit Administration (MTA)	Maryland
Massachusetts Bay Transportation Authority (MBTA)	Boston, Massachusetts
Metropolitan Atlanta Rapid Transit Authority (MARTA)	Atlanta, Georgia
Miami Dade Department of Transportation and Public Works (Miami Dade)	Miami, Florida
Sacramento Regional Transit District (SacRT)	Sacramento, California
Sarasota County Area Transit (SCAT)	Sarasota, Florida
Southeastern Pennsylvania Transportation Authority (SEPTA)	Philadelphia, Pennsylvania
Tri-County Metropolitan Transportation District of Oregon (TriMet)	Portland, Oregon
Washington Metropolitan Area Transportation Authority (WMATA)	Washington, DC

Figure 8 identifies the characteristics of the employee reporting programs in place at case study locations. Over 90 percent of responding transit agencies provide an anonymous reporting option for their employees or other reporters, with 85 percent responding that reports are considered confidential. Only 16 percent of the responding transit agencies use a third party to manage their ESR system and collect data. Table 2 shows the comparisons between case study

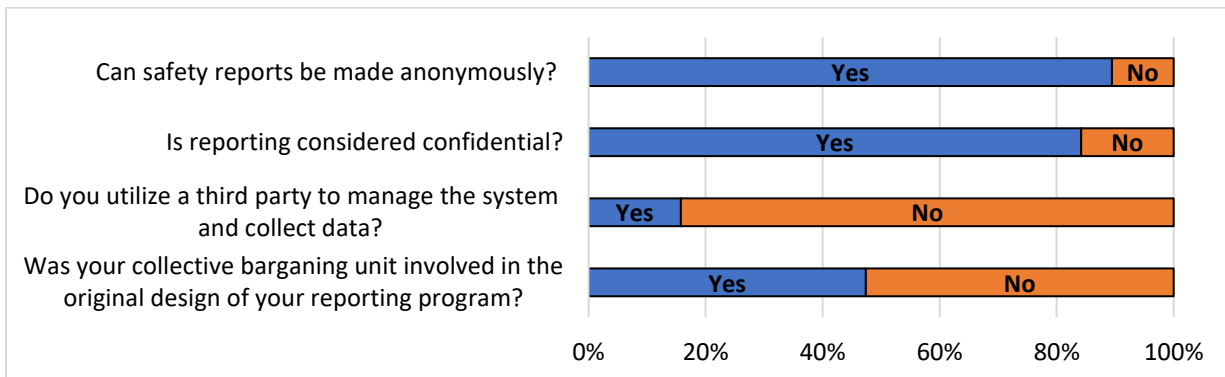
transit agencies of reporting methods, age of the ESR system, anonymity, confidentiality, and collective bargaining involvement in the development of the ESR system.



**Figure 6. Age Distribution of Respondent Agency's Non-punitive ESR Systems**



**Figure 7. ESR Reporting Methods**



**Figure 8. Characteristics of Employee Safety Reporting Systems**

**Table 2. Comparative Characteristics of Employee Safety Reporting Systems**

Transit Agency	Location	Agency Size	Methods by Which Reporting Can Occur							Age of ESR System (years)	Anonymous	Confidential	CBU Involvement
			Hard Copy/ Paper Form	Online Employee Portal	Email	Hotline	Mobile Application	In Person	Third Party System				
Big Blue Bus	Santa Monica, CA	Small	✓	✓	✓			✓		4	✓	✓	✓
Capital Metro	Austin, TX	Medium				✓				2	✓	✓	✓
LYNX	Orlando, FL	Medium								6		✓	
CTA	Chicago, IL	Large				✓				5	✓	✓	✓
GCRTA	Cleveland, OH	Medium	✓							8	✓	✓	
JTA	Jacksonville, FL	Small					✓			2		✓	
King County Metro	Seattle, WA	Large	✓							20+	✓		✓
LTD	Springfield, OR	Small	✓							20+	✓		
Lee Tran	Ft. Myers, FL	Small		✓						1	✓	✓	
LA Metro	Los Angeles, CA	Large		✓						20+	✓		
MTA	Baltimore, MD	Medium	✓		✓	✓				10		✓	
MBTA	Boston, MA	Large	✓		✓	✓			✓	15+	✓	✓	
MARTA	Atlanta, GA	Large		✓				✓		6	✓	✓	✓
Miami Dade	Miami, FL	Medium	✓	✓			✓	✓		15+	✓	✓	✓
SacRT	Sacramento, CA	Small	✓							8	✓	✓	✓
SCAT	Sarasota, FL	Small	✓	✓						1+	✓	✓	✓
SEPTA	Philadelphia, PA	Large	✓	✓	✓	✓		✓	✓	20+	✓	✓	✓
TriMet	Portland, OR	Medium		✓		✓				7	✓		
WMATA	Washington, DC	Large		✓	✓				✓	6	✓	✓	✓

Agency Size Legend – Large: Over 125 million UPTs; Medium: 25-125 million UPTs; Small: under 25 million UPTs

**General Observations and Findings**

Anonymity and confidentiality are two characteristics of ESR systems that allow employees to report hazards or close call events that they may not otherwise feel comfortable sharing due to fears of retribution, punishment, or embarrassment. One of the most prominent benefits of using a third party to manage an ESR system is the ability to emphasize the anonymity or confidentiality of the reporters. Anonymous data are recorded so the information shared can never be linked to the subject who supplied it. On the other hand, confidential data are recorded in such a way that the information is not immediately identified with the subject who supplied it, but such a link is possible through record assignment. The biggest benefit to confidentiality, as opposed to anonymity, is the ability to garner follow-up information if it is necessary to understand the reported hazard from a holistic perspective.

The transit agencies were asked if they have solicited input from frontline employees regarding reporting program improvements. The majority (79%) indicated that they have solicited feedback from employees through methods that include a place on the hazard report form itself, at meetings, in person, via a survey, or through email. While 4 of the 19 indicated they had not yet solicited feedback on their non-punitive ESR system, all indicated their intent to solicit feedback in the future. When asked specifically about safety culture surveys within their organization, JTA, LA Metro, MTA, MDT, and WMATA all indicated that they have disseminated safety culture surveys to their employees to gauge safety culture perceptions.

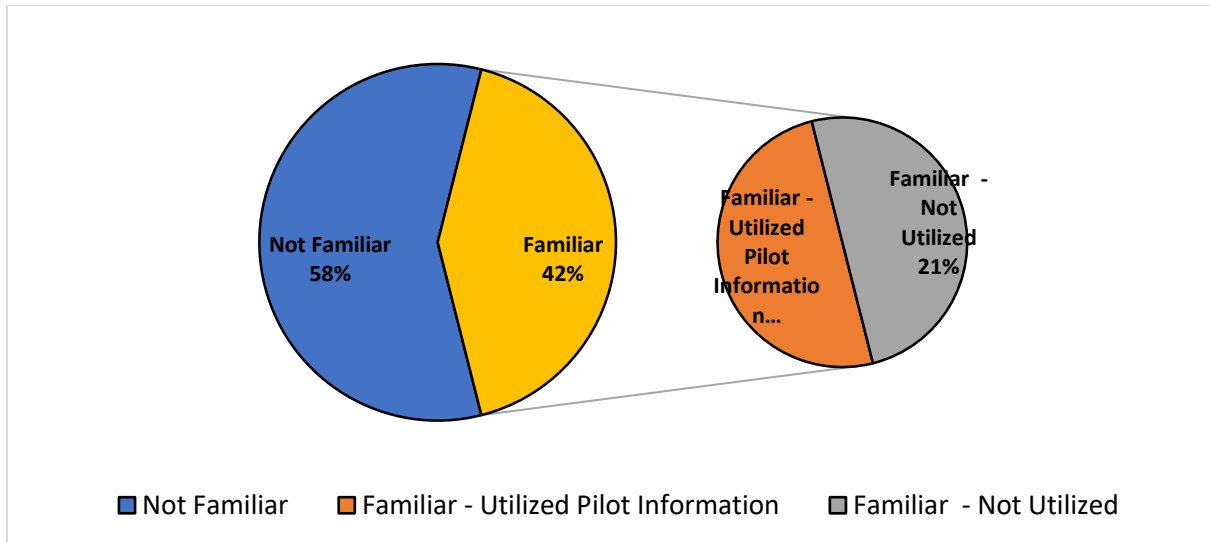
### ***Policies and Reporting Practices***

Of the 19 transit agencies that responded to the survey, more than half (53%) indicated that they have a policy in place that explicitly distinguishes between what type of event is reportable through the non-punitive ESR system and what type of event is considered negligent or illegal actions that may result in discipline. Of the remaining 9 transit agencies, either they do not have a policy instituted or their policy does not distinguish between reportable non-punitive and punishable events.

Employees can report the unsafe acts of another employee, just as they can report any other hazard or unsafe act within the organization. According to all respondent transit agency representatives, reports about another employee are handled in the same manner as any other hazard or unsafe act reported; however, several transit agency representatives expressed additional challenges related to obtaining key event details associated with these types of reports of peer employee unsafe acts.

A pre-established hazard report review team, inclusive of all departments, is in place at 9 of the 19 respondent transit agencies. The other 10 that have non-punitive ESR systems in place have review teams with members that vary by location, department, or area of expertise.

Ten of the 19 responding transit agencies developed their ESR system without the use of guidance documents, local regulations, or recommended practices. The other 9 transit agencies used SMS implementation guidelines or guidance from FRA or the California Public Utilities Commission (CPUC). Four of the responding transit agencies were familiar with FTA's SMS Implementation Pilot, including CTA, which has been a pilot site since December of 2014. However, it is important to note that the FTA SMS Implementation Pilot was not focused on non-punitive ESR, but rather on drafting a comprehensive Safety Management Policy, conducting safety culture surveys, training leadership, and developing plans to realistically implement the necessary sequence of events to systematically improve safety. Four other responding transit agencies had heard of the FTA SMS Implementation Pilot, but were not following the development of the pilots when they were establishing their non-punitive ESR systems, as shown in Figure 9. Eleven of the transit agencies that responded to the survey were not aware of FTA's SMS implementation pilot program.



**Figure 9. Agency Familiarization with FTA SMS Implementation Pilot**

**Training**

When asked if non-punitive ESR system training was tailored by employment position within the agency, 68 percent of responding transit agencies indicated that they do not tailor their training by employment position. The other 32 percent indicated their training varies by employment position and provides extensive training for employees who are involved with investigations and mitigation implementation.

Many transit agencies contract specific —for example, paratransit services—and, thus, may have contracted employees who report to a separate management company or other subcontractor. Transit agency representatives were asked if they provide non-punitive ESR system training to their contracted personnel, and a majority (63%) indicated that they do not provide training to their contracted personnel.

Through follow-up correspondence with the transit agencies, the majority (90%) revealed that their contracted employees have some of the same options to report safety concerns as any other agency employee, including the use of safety hotlines. Three respondent transit agencies, LA Metro, Maryland MTA, and MBTA, indicated that their contracted employees typically report safety concerns to their respective employers, who then theoretically share the details with the transit agency when necessary. Maryland MTA representatives mentioned that the agency is currently working with various contracted services providers to transition to MTA’s reporting tools to ensure the maintenance of a centralized all-encompassing hazard log.

When asked if they have a specific clause in their service contracts that defines ESR protocols for contracted employees, all respondent transit agencies except WMATA indicated there is no specific clause. WMATA provided an example of their Policy, Article 67 – Safety Requirements, Section 2.67.1 (see Appendix D), which details the contractor’s responsibility to ensure

compliance with the most stringent provisions of applicable statutes and regulations, and the *WMATA System Safety Program Plan and Safety Rules and Procedures Handbook*. Similarly, TriMet representatives indicated their contracted employees are subject to their *Contractor Safety Guide & Rules*, which requires a Site Safety Plan be approved by TriMet’s Safety Department and incorporated into the work contract.

### ***Stakeholder Input***

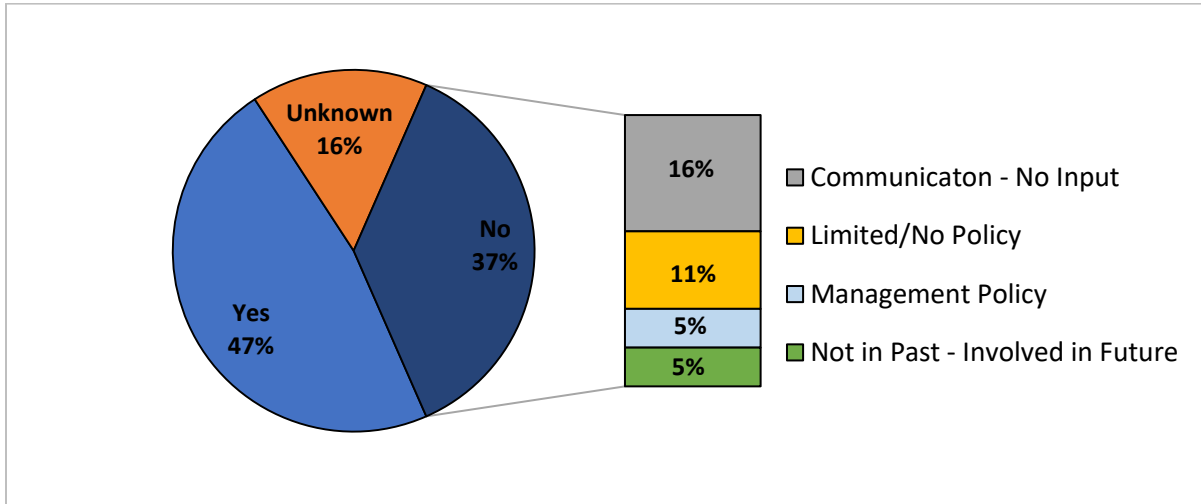
Another characteristic of a non-punitive ESR system that is imperative to consider is the role of stakeholder input in the design and implementation phases of a reporting program. Examples of stakeholders include accountable executives, managers and supervisors, operations and safety representatives, and labor union representation. As Figure 10 shows, the collective bargaining unit played a role in the original design and/or implementation of nearly half, 9 of 19, of the responding transit agencies’ hazard or near-miss reporting programs.

- Three of the representatives of responding transit agencies were unable to confirm the involvement of their labor union in the development or implementation phases of their reporting programs due to the legacy nature of the ESR system, as the programs were instituted prior to their employment with the agency.
- Of the remaining seven transit agencies, three reported open communication occurred between management and labor union representation, but no direct involvement took place. Additionally, two transit agencies reported no official hazard reporting policy in place, citing only limited guidance currently developed.
- One reporting transit agency indicated their hazard reporting policy was a management policy with no discipline-related reference and, thus, stated there was no labor union involvement.
- Finally, one respondent transit agency indicated that their labor unions had no past involvement in their hazard reporting program development or implementation but would be actively involved in any new policy development as they transition to their PTASP, as required under 49 U.S.C. Part 673.

When asked if any language could be shared from their CBA, seven respondent transit agencies indicated there was no language related to the ESR system included. SEPTA’s Bargaining Agreement Article XI – Productivity, Section 1102, Health and Safety, details the requirement of employees to “promptly report hazardous conditions” (Appendix D). Section 2 of JTA’s CBA requires that:

“Every accident and incident shall be fully, properly, and completely reported by the Operator as per the terms of this Agreement and as otherwise provided for in the Rule Book upon the report form provided by the Company. Such report shall be prepared and delivered to the Company prior to the conclusion of the Operator's workday and in any case within twenty- four (24) hours of the incident unless the Operator is incapacitated. If the Operator is incapacitated,

the Operator will provide the report to the Company as soon as is practicable. All accidents and incidents will be reviewed by Risk Management who shall render a decision of preventable or non-preventable. A preliminary determination of preventability will be made by the Company and forwarded to the Operator with a copy being sent to the Union. The Union may request additional documentation, if any, from the Company.”



**Figure 10. Collective Bargaining Unit Involvement in Design/Implementation of Hazard Reporting Program**

***Performance Measures***

The 19 surveyed transit agencies were asked if they currently track any performance measures to determine the efficacy of their non-punitive ESR system. If a transit agency indicated they do track specific performance measures of their program, the research team asked them to elaborate on the measures they track. Ten of the 19 transit agencies responded that they do not currently track any performance measures related to their non-punitive ESR system. Two indicated that they were currently in the process of identifying the performance measures tracked and trended to determine program efficacy. The other seven transit agencies track and trend various performance measures related to their ESR system, including metrics related to the volume and status of hazard reports, the hazard or event description, contributing factors, and results.

The performance metrics related to report volume and status include:

- Number of reports per month
- Customer complaints
- Open versus closed report status
- Average days to closure
- Target closure date

There are also performance metrics related to the description of the hazard or event and possible contributing factors that are reported through the survey, including:

- Hazard/event classification
- Reports by area (facility, equipment, system, security)
- Mode
- Date of hazard/event reported
- Party responsible
- Root cause

Finally, the surveyed transit agencies track and trend the following performance metrics as indicators of program efficacy:

- Workers' compensation claims and costs
- Lost time and non-lost time injury rates per 200,000 work hours
- Vehicle accident rates per 100,000 miles
- The experience modifier determined by the workers' compensation insurance system.

Table 3 displays a comparison of the respondent transit agencies including identification of transit agencies that track performance metrics of their ESR system, whether safety culture surveys have been conducted, and if the policies in place explicitly define punitive exclusions of the ESR system.

**Table 3. Comparative ESR System Performance and Policy Considerations**

Transit Agency	Location	Track ESR System Performance Metrics	Safety Culture Surveys Conducted	Existing Formal Policy with Explicit Punitive Exclusions
Big Blue Bus	Santa Monica, CA			✓
Capital Metro	Austin, TX	✓*		✓
LYNX	Orlando, FL			
CTA	Chicago, IL			
GCRTA	Cleveland, OH	✓		✓
JTA	Jacksonville, FL	✓	✓	✓
King County Metro	Seattle, WA			
LTD	Springfield, OR	✓		✓
Lee Tran	Ft. Myers, FL			✓
LA Metro	Los Angeles, CA		✓	✓
MTA	Baltimore, MD	✓	✓	
MBTA	Boston, MA			
MARTA	Atlanta, GA	✓*		
Miami Dade	Miami, FL		✓	
SacRT	Sacramento, CA	✓		✓
SCAT	Sarasota, FL			
SEPTA	Philadelphia, PA	✓		✓
TriMet	Portland, OR			
WMATA	Washington, DC	✓	✓	✓

## Chapter 4 – Characteristics and Elements of an Effective Employee Safety Reporting System

The background research and case studies revealed both a framework for the development and implementation of an ESR system and the characteristics and elements of effective ESR systems. The Program Design Framework addressed below can be used to establish an ESR system, and the characteristics and elements of successful ESR systems are examined through the lens of this framework. The researchers categorized various characteristics as “leading,” which include elements that exist within demonstrated, data-substantiated successes primarily examined through the background research, and “common,” which includes those identified among those case study sites that self-reported an effective ESR system.

The literature review and background research established data-supported leading practices that are central to the ASRS, C3RS, SafeOCS, OSHA, NATCA, and NRC ESR systems that include:

- **Investigation and corrective actions** – structured and comprehensive examination of reported hazards or near-misses based on defined reporting parameters
- **Notification of hazard and dissemination** – a formal approach to dissemination of reported hazards, close call events and mitigation strategies
- **Online reporting system** – research indicates that online ESR systems provide greater access to affected employees and provide both perceived, and in some cases, real anonymity
- **Protection from punitive actions** – the literature documents the successes achieved when employees are protected from punitive actions. This success is reflected in significant growth in employee reporting in several national ESR systems.

As an example, a 2018 presentation of Volpe’s 2017 study of FRA’s C<sup>3</sup>RS showed that since implementing a confidential close call reporting system, derailments have been reduced between 20–40 percent across three sites, transportation-related injuries fell by 18 percent at one site, and two sites saw 39–90 percent fewer disciplinary hearings (specific pilot locations were not disclosed).<sup>109</sup> The authors attributed the reduction in derailments to the corrective actions taken in response to employee reports and the level of reporting that now exists due to the protection against punitive actions granted to employees.

Since FAA implemented the ASRS, reports have grown from 400 safety reports submitted per month to over 8,200 safety reports per month in 2019. Total number of incidents reported since the inception of the program in January 1981 through December 2018 were 1,625,738. Similar increases are reported by other systems such as C3RS and NRC. FAA disseminates “significant items” through several industry targeted methods.

Organizations that have established MOUs with BTS have seen successes through both the confidentiality of the ESR system and industrywide information-sharing. As an example, BTS first began collecting data on the offshore oil and gas industry equipment component failures in

December 2016. The *Oil and Gas Production Safety System Events 2017 Annual Report*<sup>110</sup> summarized the first full year of reporting that included 112 SPPE failures from 9 of 59 Gulf of Mexico production operators, which were shared with the industry. These 9 operators represent 35 percent of active wells and 40 percent of total oil production in the Gulf of Mexico.<sup>111</sup> As summarized in the *2017 Annual Report*, while the majority of these failures were attributed to internal leakages (88%), which pose less risk, the thoroughness of the reporting provided by the 9 operational units reflects conformance with the required reporting.

## Program Design Framework

Several representative ESR frameworks were identified through the background research, which delineate the critical elements included within those frameworks. The research indicates a public transit agency should develop policies, procedures, and programs based on a clearly defined framework implementation strategy and standard operating practice. The framework elements are shown in Figure 11.



Figure 11. Program Design Framework

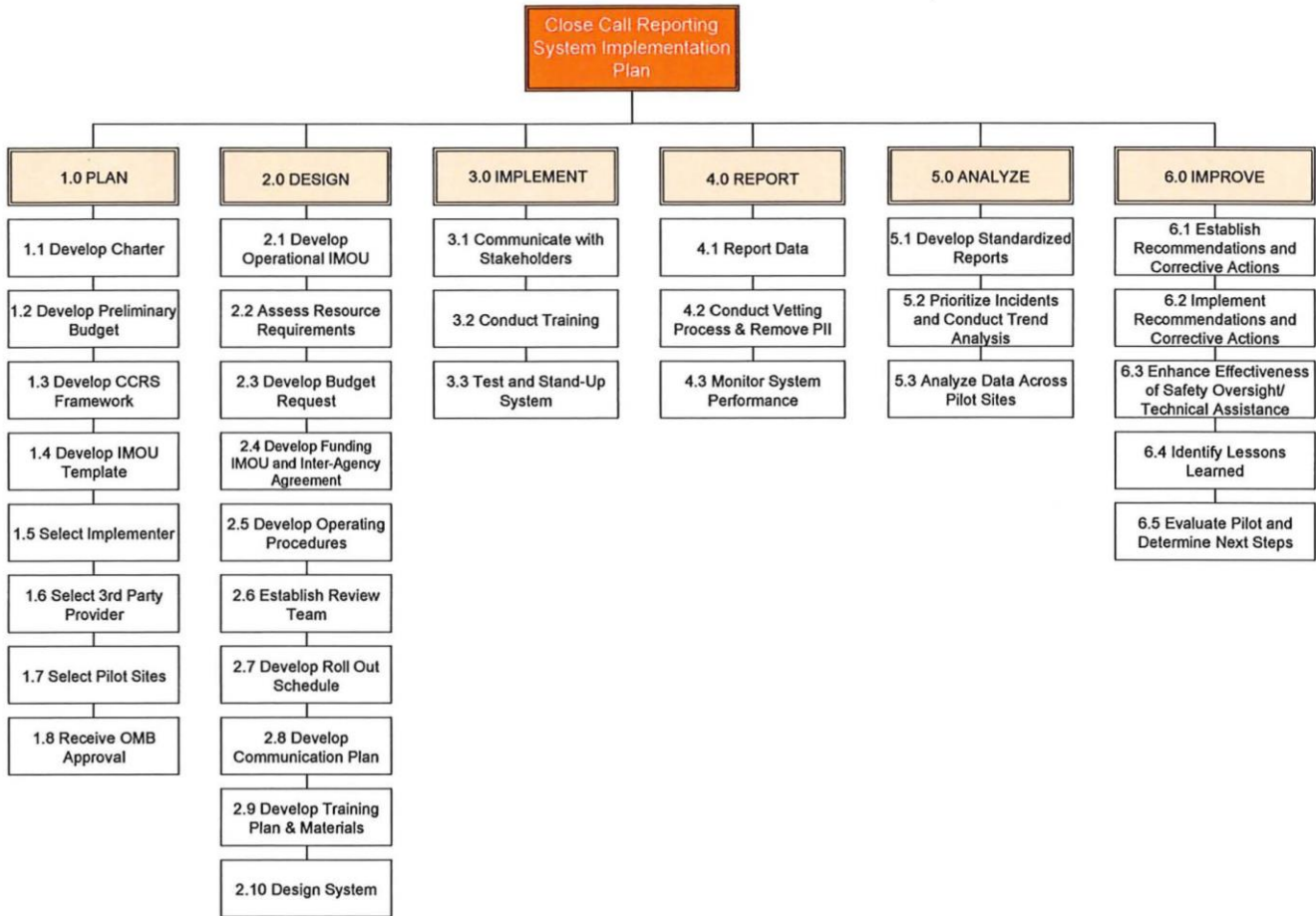
- **Definition of terms** associated with the process established
- **Delineation of reportable events**, including those that may not be considered non-punitive
- **Reporting procedure/process(es)**, including who can report and how reports may be submitted
- **Confirmation**, a method of providing a receipt or other method of confirmation to the reporter
- **Investigation and follow-up**, a method of investigating the report and providing follow-up
- **Mitigation strategies**, a method of determining hazard mitigation strategies

- **Outcome notifications**, a method of notifying the reporter and transit workers of the outcome of the report and associated hazard
- **Strategy/process evaluation**, a method of evaluating the instituted strategy to ensure there are no unintended consequences

Overall program and agency safety continuous improvement rest in the following elements, which are also elemental in the SMS framework:

- Collect and analyze data, for the comprehensive development of corrective actions, and effectiveness monitoring consistent with established and documented performance measures
- Gather and maintain data in a robust information ESR system platform, and provide ongoing program evaluation and support based on that data
- Establish, promote, and train management, employees, and collective bargaining units on the internal and external communication strategies developed
- Establish routine and periodic process improvement strategies to include employee feedback, program evaluation, system safety trends and improvements made as a result of employee reporting
- Ensure that the structure developed includes specific strategies and processes that will promote procedural fairness, as defined in this report, across management and labor

FTA's Close Call Reporting System Implementation Plan<sup>112</sup> provides an excellent structure for a non-punitive ESR system and reflected the framework components above. This implementation plan is illustrated in Figure 12, which presents key components and work plan elements that, if adopted by public transit agencies, may lead to successful programs.



Source: *Close Call Reporting System Program Implementation Plan*, US Department of Transportation, Federal Transit Administration, BPA Number: DTFT60-10-A-0009, 2012.

**Figure 12. FTA Close Call Reporting System Implementation Plan**

***Definitions of Close Call, Near-miss, or other Terms of Relevance***

The seminal point in the development and execution of any formal close call reporting system is defining the terms that will be used to identify qualifying events. The terms “close call” and “near-miss” are often used interchangeably, as demonstrated by case study sites and in the literature review. As presented in FTA’s Close Call Reporting System Implementation Plan, a close call would likely include the following:

- An incident that had the potential to result in serious injury or death
- A potential safety incident that occurred due to an operator error
- A rule violation or other abnormal operating event that did not result in an accident
- A safety hazard that could have resulted in an accident
- A near-miss event that could lead to an unsafe operating environment<sup>113</sup>

Different definitions are used in close call reporting by various transportation modes and other industries, for example:

- **FTA's TRACS** defines a close call as a situation or circumstance that has the potential for safety consequences but did not result in an adverse safety event.<sup>114</sup>
- In **FRA's C<sup>3</sup>RS** system, a close call is any condition or event that has the potential for more serious safety consequences, while FAA's ASRS is used to describe both unsafe occurrences and hazardous situations and ASRS analysts codify reports using a taxonomy of event or situation types.
- **BSEE** defines "near-miss" for its SafeOCS voluntary confidential near-miss reporting system as "a sequence of events and/or conditions that could have resulted in loss...prevented only by a fortuitous break in the chain of events and/or conditions. The potential loss could be human injury, environmental damage, or negative business impact."<sup>115</sup>
- **Nuclear industry** employees can report rule violations and safety concerns, whether potential or actual safety issues, to the NRC. Violations and safety concerns can cover issues including, but not limited to, areas of design, construction, operation, maintenance, radiation protection, safeguards, security, emergency preparedness, harassment, intimidation, retaliation, discrimination, wrongdoing, a work environment that discourages workers from raising safety concerns, and other matters related to NRC-regulated activities.
- **OSHA** reporting can include any identified serious hazard or incidents where employers are not following OSHA standards. OSHA recommends that workers who believe their working conditions are unsafe or unhealthful to first bring the issue to their employer.

A few case study public transit agencies, including BBB and King County Metro, are using the NSC's definition of near-miss – "an unplanned event that did not result in injury, illness, or damage but had the potential to do so." BBB also includes the term "hazard" in their ESR system, defined as anything that has the potential to do harm.

For Greater Cleveland RTA's hazard ESR system, a hazard is defined as any real or potential condition that can cause injury, illness or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation agency; damage to the environment; or reduction of ability to perform a prescribed function.

LA Metro's SAFE-7 Hazard/Near-Miss Reporting System procedure defines "near-miss" as an unplanned event that did not result in injury, illness, or damage – but has the potential to do so. They define a hazard as any source of potential damage, harm, or adverse health effects on something or someone.

WMATA's MOU with their rail and bus employees defines a close call as "a situation or circumstance that had the potential for safety consequences, but did not result in an adverse safety event."

### ***Delineation of Reportable Events***

From the transit agency definition of what is considered a close call or near-miss event, the next step is delineating what specific events are considered reportable and communicating that delineation across the transit agency. This delineation may also provide the steps that reporters must take to report those events that may pose immediate threats versus those that may not. The agency may design the reporting framework to collect reports on events that vary in the level of risk, with corresponding processes for each of those levels.

LA Metro's SAFE-7 reporting program provides employees the opportunity to report any concern or complaint about any unsafe condition, hazard, or near-miss event. The program has several reporting categories with each having subcategories from which reporters can select.

Public transportation agencies should develop the definitions and delineation of the reportable events they will use for their ESR system based on their own local circumstances and the input of their employees. However, the examples provided in this section may be beneficial in the development of definitions and reportable event taxonomy.

Whereas establishing ESR system definitions and delineating reportable events are recommended practices, it is important to recognize that there are case study sites from this research that report successes in the implementation of a more informal hazard or safety concern reporting process. In these cases, formal definitions are not used and transit personnel or committees are used to review reports, categorize the reported hazards or safety concerns, and assign the methods and approaches used for follow-up and assigning corrective actions. For these transit agencies, they suggest this method has proven effective.

### ***Reporting Process***

The background research and the case studies illustrate the benefits of providing employees multiple platforms for reporting. Online web-based reporting was consistently referenced, along with telephone hotlines, and, in some cases, the ability to submit hard copies of reporting forms. Transit agencies may consider an electronic reporting method if they are concerned with their ability to maintain confidentiality and provide a platform for anonymous reporting. While other methods can ensure confidentiality and anonymity, data control and custody practices must be thoughtfully developed.

Electronic reporting may present a better option for transit agencies that would characterize their safety culture and the trust of frontline employees as less mature, simply due to employee perceptions that these ESR systems provide for greater protections and the ability to remain anonymous. When establishing the reporting process and methods of reporting, the quantity of reporting methods available may not be as important as the ease of access to a reporting platform or platforms, as reflected in LA Metro's Safe-7 online ESR system.

### ***Confirmation***

Public transportation agencies should have a mechanism in place to provide employees, even those who submitted anonymously, confirmation that the agency has received their report. The literature review and case studies provide examples of how transit agencies can perform this function. If the safety hazard has been reported online, there are ESR systems that will assign a case number or other numeric identifier that a submitter can use to track the progress of the report. As an example, reports submitted through LA Metro's online reporting tool receive a confirmation ID that reporters can use to track the progress of their report. In other instances, the transit agency will send an email confirmation that the report has been received.

Transit agencies generally provide summaries of reports submitted and their progress during monthly or other regularly scheduled safety meetings. At Tri-Met, employees and reporters can track the progress of submitted reports through the Status Summary Report available on the agency's intranet site. These examples present opportunities for reporters to ensure their report was received and that it is in process.

### ***Follow-up/Back to Reporter***

Public transportation agencies should have a structured process in place to ensure that employees who report safety hazards to an ESR system know their reports have been submitted and that the transit agency is taking action to address a reported hazard. The case studies and long-standing ESR systems highlighted in the literature review provide multiple examples of this follow-up activity. This follow-up takes many forms, including email correspondence, electronic process tracking applications, postings in transit agency common areas, verbal and written reports provided during safety meetings, and in updates provided to agency management.

One case study site offered that a key point sometimes lost in developing and implementing an ESR system is that it is not solely about reporting an event. They recognize the criticality of the process but offer that the most important element in programs such as these is how the agency manages the associated safety risks once identified. This is the information that should be provided to the reporter – that the agency has received their report, investigated and processed in accordance with agency policies, and action has been taken.

### ***Data Collection and Analysis***

Data collection and analysis goes beyond the contents of an ESR. Through both the background research and case studies, collecting, analyzing, and monitoring safety trends was demonstrated as a central point of safety risk management and safety assurance processes. ESR systems should be performance-driven, with specific performance measures identified and tracked against employee reports, accident and incident investigation findings and reports, and other public transportation agency data.

### ***Technology and Information Management***

As illustrated in the background research and case studies, ESR systems will become more prevalent in the public transportation industry, primarily due to the industry-wide adoption of the SMS framework and the implementation of locally developed PTASPs. In anticipation of the associated greater data collection and analysis needed, public transportation agencies will have to internally develop or purchase technologies and information management system platforms to effectively log reports (or have them generated directly to these ESR systems), analyze trends over time (including those that may be systemic in nature), generate reports, and monitor corrective actions, at a minimum.

The ESR system(s) developed should support a transit agency's practice of tracking performance measures, as described above. From the perspective of technology implementation and information management, transit agencies will need to ensure that they are effectively prepared for the volume of data that may be generated through these ESR systems with increased utilization.

As ESR systems are established, it will be important for transit agencies to prescribe data collection and release protocols, and ESR system access and to specifically delineate who has access to the raw data. This will require an ESR system inclusive of data protection controls that may include limiting ESR system access and password protections to better protect the anonymity of reporters and the confidentiality of the reporting.

The use of a third party, as previously noted, is not required for the successful implementation and management of an ESR system. However, this option may present an opportunity for transit agencies that do not have the internal capacity to establish, maintain, and manage these ESR systems.

Safety and security reporting platforms are becoming more prevalent in the public transportation industry. Agencies such as JTA, MARTA, MBTA, LYNX, and SEPTA are using the ELERTS "See Something Say Something" mobile application. These reports also generate data that may be used in a public transportation agency's risk management and risk assurance processes. Case study sites have developed their own reporting platforms and smart phone applications, such as the MDT Tracker. Whether transit agencies are using a vendor product or have the capacity to develop their own ESR systems, they should establish how they will gather and store the data, use it in support of the agency's SMS process, track safety and security risks, and address those risks based on reports submitted through this or similar applications.

### ***Outcome Notification – Internal/External Communication Strategies***

Internal and external communication includes all communication that takes place between employees and management within the same unit, across organizational units, and across the agency. It also includes communication between the agency and its contractors, the agency and local governments or other governmental units, and the agency and the community.

As reports are submitted, employees and contractors operating within that unit should be made aware of the reported hazard or concern. This is reflected in the background review and case studies and often take the form of bulletin board posting (including electronic message boards), during regularly- scheduled safety meetings, or between unit employees and supervisors. For hazards or concerns that would have the potential of affecting the employees or other personnel at other operating bases (as an example) or all transit agency employees and contractors, the notification should be directed agency-wide from public transportation agency management. There will be hazards or concerns that involve external partners, such as local government public works departments, that may require communication with those outside entities and a corrective action on their part. This could include hazards associated with specific intersections, bus stop locations, signals and signage, tree limbs that limit the field of view, or other hazards. It is important that all stakeholders, from the reporter to agency personnel to those outside the agency, including the public, recognize that safety is important and that hazards or other unsafe conditions or actions are being addressed and mitigated.

These internal and external communication and coordination strategies should also be established by written policies and procedures. In some cases, this may also require MOUs with local governments or other outside agencies that may be required to respond and correct hazards that are reported.

### ***Strategy/Process Evaluation – Process for Change***

All the non-punitive ESR systems and processes examined in this research provide employees and other stakeholders clearly defined processes or opportunities to provide input to the program, regardless of agency size. More advanced ESR systems, such as the C<sup>3</sup>RS and ASRS, worked with stakeholders very early in the process of establishing those ESR systems and include formal MOUs that delineate the process, including opportunities available to provide ongoing input to the ESR system. However, other less advanced ESR systems also tend to solicit input from their employees and contractors through routine employee surveys and one-on-one interaction between employees and their supervisors, or with agency management.

This ongoing process for change should have a well-documented, prescribed process for gaining input from employees, supervisors, agency management, and members of the collective bargaining unit. At a minimum, a transit agency should conduct initial surveys during the design period, following any beta testing that might occur, after the initial training or promotion has occurred, and after initial implementation, and then routinely after its full implementation.

Along with this input, and to inform frontline workers of program benefits, the need for their input and its value to the agency, transit agencies should make reporting the successes generated through the program as routine. Public transportation agencies can share successes during regularly scheduled safety and unit meetings and via agency postings, electronic message boards, and agency newsletters or other publications. If employees recognize that the agency is listening to them, that actions have been taken that have improved the overall safety

of the agency, and that the agency also values their comments on the ESR system, they may be more likely to more effectively present their observations of the ESR system and any recommended improvements.

### ***Organizational Strategies for Promoting Procedural Fairness***

The researchers define procedural fairness as the systematic development of processes and procedures, employee understanding of the process, and management compliance with and execution of those processes and procedures without prejudice to the individual or the process, ensuring effective and fair outcomes. Reflected strategies include those that protect employees, improve the safety of their operating environment, and allow the opportunity to challenge or appeal the investigation and corrective action outcomes. It begins with their involvement in the design and implementation of the program, training or promoting the ESR system, and providing ease of access to reporting platforms. Further, it includes:

- The ability to provide input through the investigation and determination of outcomes
- Well-defined feedback loops
- Written policy or procedural statement that protects employees from punitive actions or retribution, except for those situations that involve a blatant disregard of agency policies, procedures, or safety operating practices
- Notification of investigation findings and follow-up actions
- Written policy or procedural presentation of the steps that a reporter can take to challenge or appeal an investigation outcome or mitigation strategy used

Employee safety reporting processes should establish target timeframes by which the agency will initiate and complete the procedural steps in the investigation process and associated corrective actions. If there are points along the continuum where committee meetings are held or management presentations are given, reporters should be aware of these steps in the process and estimated times by which these will occur. Employees should know that their voices are heard and that the agency is actively taking the steps required to address concerns, hazards, or other issues.

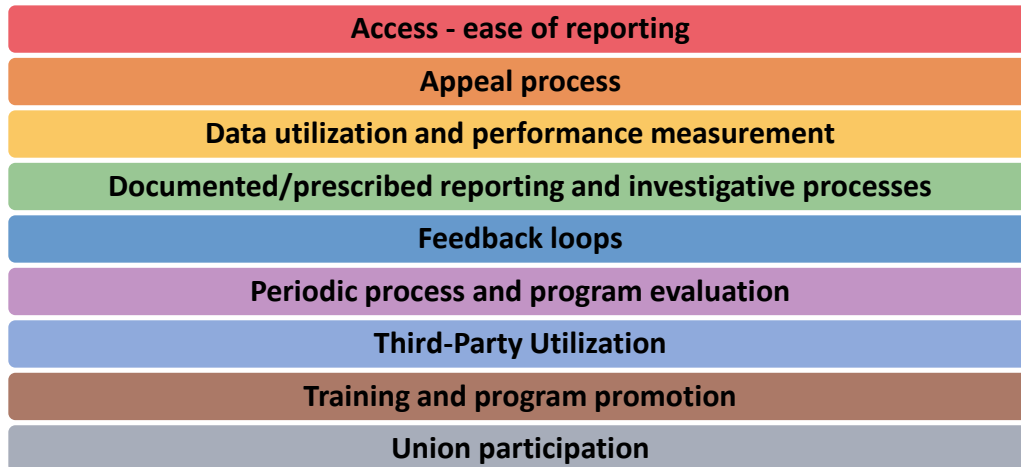
Finally, and as reflected in the background research discussion, even though a system is non-punitive, it may not establish that all reported behavior is acceptable.<sup>116</sup> Every non-punitive ESR system should establish a formal policy and corresponding implementing procedure that clearly defines the types of protections that are being afforded by reporting and how identifiable information will be used.<sup>117</sup> “Fair treatment of employees also requires fairness and consistency in dealing with rule violations. When rule violations occur, there should be a fair appeals system in place to dispute them in cause of a disagreement.”<sup>118</sup> Employees must be made aware of what is punishable when there appears to be a blatant disregard for any rules, when it is determined to be intentional or due to negligence.<sup>119</sup>

## **Common Characteristics and Elements of Effective ESR Systems**

The 19 public transportation agencies in this study found varying degrees of success in the design, implementation, and ongoing management of their ESR systems. The researchers identified common practices from these case study participants, including:

- Participation of the local collective bargaining unit in the design, implementation, investigation, and corrective action processes
- Employee access – multiple reporting options or ease of reporting
- Well-defined procedural processes for collecting, investigating, and correcting the reported hazards
- A robust investigation process that involves multiple players from across the agency
- Feedback to reporters, from initial receipt of the report through the process and follow-up once the hazard has been corrected
- Methods to ensure anonymity and confidentiality
- A written agreement between the agency and its employees that reporters can remain anonymous and that if contact information is provided, there will be no punitive actions taken, for those events or behaviors that do not represent cardinal rule violations, such as drug and alcohol-related actions, or blatant disregard of agency policies. The agreement would also provide protections against retaliation, intimidation, or discrimination of the reporter. These statements could be included as part of a collective bargaining agreement (CBA) or MOU
- Precise statement of what would be considered non-punitive and those that would result in punitive action, such as those events or behaviors listed above and defined by the transit agency
- A method that will provide reporters an opportunity to challenge or appeal the outcome of the investigation or the corrective action(s) taken
- Training and program promotion
- Ongoing tracking of safety data, common agency hazards, and the effectiveness of mitigation strategies
- Periodic process and program evaluation

These practices are reflected within eight overarching themes described below and illustrated in Figure 13 in alphabetical order.



**Figure 13. Case Study Common Practices**

***Access (or Ease of Reporting)***

All public transportation agency case study sites provide anonymous reporting options and take the steps necessary to ensure confidential reporting, as applicable. Examples of transit agencies with multiple reporting avenues and one that only provides a single method of reporting are described below.

**LA Metro** has a single online submittal method, the SAFE-7 form. To accommodate their employees and ensure their ability to report, LA Metro installed desktop computers at each division and provides access to every employee.

Conversely, **MDT** provides multiple reporting options to their employees, including a hard copy form, online, or via the agency’s smartphone application – the MDT Tracker, which they developed internally. Anonymity is ensured through both the online reporting portal and the MDT Tracker, used by both employees and the public. The TWU shop steward or officers may also bring safety concerns forward on behalf of their employees.

Of all public transportation agencies included as case study sites for this project, **SEPTA** has the most reporting options available to employees:

- Notify their managers verbally
- Complete a Hazard Report Form
- Notify their Location Safety Committee representative
- Complete the SEPTANow online form
- Submit an email to [systemsafety@septa.org](mailto:systemsafety@septa.org)
- Submit concerns through the non-emergency safety hotline
- Use the VERITAS Customer Service Tracking System to report hazards
- Employees who are a part of SEPTA’s commuter rail system FRA C3RS program may report through NASA

In these examples, the transit agencies indicate a consistent level of reporting and significant ESR system improvements that were made as a result of the reporting. The success of both ESR systems leads to a key takeaway that the ideal number of reporting options will not be consistently uniform across transit agencies. Rather the number of options should optimize employee access along with the agency's ability to document and follow up with reported hazards.

### ***Appeal Process***

An appeal process is important for employees who do not feel a reported safety hazard was reasonably mitigated. Several respondent case study transit agencies have appeal processes in place for their employees.

**Capital Metro, GCRTA, MBTA, and SEPTA** have instituted the Good Faith Challenge program at their transit agencies, in accordance with the FRA procedures defined in 49 CFR 218.97 for their commuter rail operations, which afford right-of-way employees the right to challenge procedures that violate FRA regulations or railroad operating rules in good faith.

**LA Metro** employees can request a re-evaluation of their safety concern if they do not feel management's response adequately addressed their concern. This re-evaluation process is not defined in a specific policy.

**MARTA's** Safety Hazard Notification and Escalation Process establishes the steps that must be taken to gather, investigate, and correct the reported hazard. It also delineates an appeals process in the event the reporter is dissatisfied with action taken or the response. MARTA's Safety Hotline Procedure (SQA-SOP-1020) provides the scope and purpose of the hotline, the definitions used, various responsibilities of MARTA personnel involved in the process, and the details of the Safety Hotline notification and Investigation Process.

To appeal hazard mitigation measures that employees feel are inadequate, **MBTA** encourages employees to use the ESR system again to clarify the hazard and report a mitigation measure to be ineffective. Additionally, if employees consider themselves in danger due to this inadequately mitigated safety hazard, they may issue a Good Faith Challenge.

At **MDT**, if an employee is not satisfied with the evaluation and associated resolution of their reported concern, they may request a Transit Safety Review. MDT's Chief of Transit Safety and Security provides the final approval of either the initially prescribed resolution or other corrective action.

**Maryland MTA** employees who are not satisfied with the hazard mitigation may bring that concern to the safety officer assigned to resolve that concern. They have no policy that describes how anonymous reporters would appeal the response or mitigation strategy.

**SEPTA** has a dispute resolution process defined in the TWU 234 CBA, which focuses on the use of the JHSC to resolve the issue. If the employee remains unsatisfied with the resolution, they may seek resolution through the grievance process, which could include arbitration, as defined in the CBA. Track workers are also able to submit a Good Faith Challenge through the procedures developed in accordance with FRA's regulated 49 CFR 218.97 under the roadway worker protection requirements. The Good Faith Challenge was expanded within SEPTA to also include transit employees who are not governed by the FRA. The program initially started as a way for employees to report uncomfortable levels of protection; however, this has been expanded to include reports of any safety concern of an employee.

At **TriMet**, if an employee feels that their concern was not fully answered or adequately resolved, they may ask that the request for safety assessment (RSA) be reviewed again or re-opened. If an employee requests a review, they are encouraged to provide additional information to ensure the review adequately addresses all aspects of the concern.

If a **WMATA** employee is not satisfied with the resolution of a hazard, they have the option to contact BTS again to report that the hazard was not mitigated. When this occurs, the Peer Review Team will revisit and reevaluate the preventive action that was instituted to improve the hazard resolution. WMATA has also instituted the Good Faith Challenge program in accordance with the FRA procedures defined in 49 CFR 218.97 within their Roadway Worker Safety program for rail workers.

The variation in the use of appeal processes for safety hazard mitigation among respondent transit agency case studies reveals that not one particular type of appeal process will necessarily work for every transit agency. Rather, transit agencies should consider the types of resolution process that will work best at their agency based on transit agency size, resources, and ESR system frequency of use and appeals.

### ***Data Utilization and Performance Measurement***

All public transportation agency case study participants are champions of SMS and recognize the value of data-driven priorities in risk abatement and process improvement. Transit agencies understand that ESR systems are central to the effectiveness of the SMS framework and are using the data gathered in response to these reports to identify both lagging and leading risk indicators for their agencies.

Seven of the 19 transit agencies included as case study sites track and trend various performance measures related to their employee reporting program, including metrics related to the volume and status of hazard reports, the hazard or event description, contributing factors, and results.

The performance metrics related to report volume and status include:

- Number of reports per month
- Customer complaints
- Open versus closed report status
- Average days to closure
- Target closure date

In addition to the performance metrics that are related to report volume and status, there are also performance metrics related to the description of the hazard or event and possible contributing factors that are reported, including:

- Hazard/event classification
- Reports by area (facility, equipment, system, security)
- Mode
- Date of hazard/event reported
- Party responsible
- Root cause

Finally, there are resultant performance measures that are tracked and trended to determine the efficacy of a non-punitive ESR systems, which include:

- Workers' compensation claims and costs
- Lost time and non-lost time injury rates
- Vehicle accident rates
- The experience modifier, which is determined by the workers' compensation insurance system

**SEPTA** discussed their process to measure and track the efficacy of their hazard ESR system, which is based on the data and documents submitted and collected during the investigation process. SEPTA reviews and trends the data and information submitted or obtained during the investigation process and tracks performance measures, including:

- Lost-time and non-lost-time injury rates per 200,000 work hours
- Customer complaints
- Issues reported
- Length of time taken to address issues
- Vehicle accident rates per 100,000 miles

Data collection and analysis brings concerns about access to that data, from an individual reporter and the agency's perspective. The third parties that oversee FAA and FRA's safety reporting systems, as an example, have evidentiary protections granted to them in Federal law. As of the writing of this report, Congress had not yet granted these evidentiary protections to public transportation agencies collecting employee safety reporting and accident/incident specific data in support of SMS implementation. During the interviews with case study transit

agencies, the majority stated that State law also does not protect the data they currently collect.

### ***Documented and Prescribed Reporting and Investigative Processes***

As established in Dekker's *Just Culture*, getting employees to report is difficult, but keeping the rate of reporting once an ESR system is up and running can be equally difficult. He suggests that getting people to report is about two major things—maximizing accessibility to reporting platforms (previously addressed) and minimizing anxiety.<sup>120</sup> He suggests that this anxiety and the associated lack of reporting motivation can be addressed by leaving little ambiguity in the reporting process, including employee protections that are self-evident. This means public transportation agencies should formally establish, adopt, and promote a well-documented and prescribed detailed process. In addition, reporters should feel confident that they are protected and that their concerns are being addressed in a timely manner.

One of the most important elements of reporting and investigative processes is establishing timelines. Public transportation agencies that are establishing ESR systems should well define the process and clearly state the steps that will be taken from the receipt of an initial report to its resolution to the ongoing monitoring of associated hazards and 65 mitigation strategies. Processes or a procedure document should include specific timelines for:

- Notifying a reporter that the report has been received
- Reviewing the report and determining the validity of the hazard or reported concern
- Assigning the investigator (investigating department)
- Completing the investigation, including any follow-up necessary with the reporter
- Developing the corrective action plan
- Performing the corrective action
- Notifying the reporter and agency personnel of the concern reported and the steps that were taken to correct the hazard or concern
- Revisiting the mitigation to ensure that it worked as intended and did not create unintended consequences

**Capital Metro's** ESR system is structured with time points that correspond with steps in the process. For concerns reported on Metro's Hotline, messages must be reviewed within 24 hours from the time the message was received. On a concern has been reported through the hotline or online, an ESR Program Manager reviews the report and forwards the content of the report to the department and/or Metro service provider assigned the responsibility of investigating the concern and providing a response to the reporter. The department assigned to investigate the report has to respond with a resolution within 10 days of the assignment, and a response to the reporter must be provided within 30 days. During this time, the program manager monitors activities, ensuring the disposition of the report by the end of the 30-day period.

**GCRTA's** Standard Operating Procedure (SOP) #8.1, Hazard Reporting & Management Procedure provides definitions of the purpose and objectives of the SOP and guidance on various reporting mechanisms available to report conditions that may be safety critical and outlines the process adopted to have uninhibited reports of incidents, hazards, occurrences, and risk, which may compromise safe operations. It provides a standardized method for categorizing, tracking, and resolving hazards and reducing incidents and injuries through the resolution of the identified hazards. GCRTA trains all accident investigators and supervisors with investigative responsibilities to use TapRoot® Root Cause Tree® methodology to investigate hazards and events using the trademarked Root Cause Tree. Through this tool, investigators can discover the root cause of an accident, incident, or hazard and can ultimately assist in the mitigation of the risks associated with the identified hazards.

**JTA's** policy includes a goal of closing out all reported hazards within seven days of receiving a report. Once corrective measures are identified and implemented, JTA conducts follow-up evaluations at 30, 60, and 90 days after the measure was instituted to ensure that the mitigation has worked as intended and not contributed to or caused any separate issues.

**LA Metro's** System Safety Program Plan includes a safety policy that regulates the reporting process. This policy obligates every employee to report unsafe conditions encountered on the agency premises, including any type of near misses. The same policy also mandates management to investigate any event reported through SAFE-7 and inform the originator of the report the status of his claim. The reports have to be closed within 30 days (unless the mitigation is classified as a long-term resolution item) from its origination, and the results have to be published or the originator notified of the report and related actions within this timeframe.

**LTD's** non-punitive reporting activities, including reporting methods, follow-up activities, data collection, and development and tracking of corrective actions to eliminate or mitigate issues reported, are outlined in two policies and LTD's CBA with the ATU Local 757. The policies, the *LTD Operator Policy and Procedure Manual* and the *Administrative Employee Handbook*, are made available to drivers online and in hard copy form. These documents highlight the distinction between the issues that can be reported through the non-punitive ESR system (Blue Cards and Hazard Cards) and actions considered negligent or illegal that require disciplinary actions. The roles of the Safety Committee, comprising 11 members from different departments and two director-level senior management members, are also provided in the policies.

**MARTA's** "Safety Hazard Notification and Escalation Process" establishes the steps that must be taken to gather, investigate, and correct the reported hazard. It also delineates an appeals process in the event the reporter is dissatisfied with action taken or the response. MARTA's Safety Hotline Procedure (SQA-SOP-1020) provides the scope and purpose of the hotline, the

definitions used, various responsibilities of MARTA personnel involved in the process, and the details of the Safety Hotline notification and investigation process.

**MBTA** and **SEPTA** participate in FRA's C<sup>3</sup>RS program for their commuter rail operations. The reporting process and procedures associated with investigating and correcting reported hazards through this ESR system are well-vetted and documented in negotiated MOUs with their unions, FRA, and NASA.

**TriMet's** RSA system and associated processes were put in place to support the safety risk assessment function of the agency's SMS. The agency-implemented Operating Procedure SSE-053, Request for Safety Assessment (RSA), last revised in August 2016, defines the purpose, specific responsibilities by role, and definitions related to TriMet's RSA. The purpose of the RSA program and the associated procedure is to provide a means for any TriMet employee to communicate safety concerns and standardize the submission and review of the information that is communicated. RSAs typically include issues or hazards that cannot be resolved by the employee's immediate supervisor or manager. The procedure establishes deadlines for the steps involved in the process.

### ***Feedback Loops***

Every case study participant has established processes to ensure reporters will be notified that their report has been received, investigation outcome, steps have been taken to correct a reported event or hazard, and any additional follow-up actions taken in response to the reported concern. Transit agencies with electronic report submittals include an auto-generated confirmation to the reporter.

At **LA Metro**, SAFE-7 provides a confirmation to the reporter that the report has been received and a confirmation identification number that stays with the report until the process concludes. The employee can track their report through the process via the online system. If an employee submitted the report anonymously, transit agencies take care to ensure that the report and outcomes are disseminated throughout the agency in safety meetings, newsletters or other promotional postings, electronic message boards, and through the local employee union representatives. If the employee included their contact information, the majority of the case study sites will communicate directly with that individual and maintain the dialogue until the process has concluded.

Regardless of the reporting method, **MDT** will notify reporting employees of the investigation outcome and associated resolutions. If a report is submitted anonymously, a reporter will learn of the resolution through Safety Committee reports or directly from their division managers. MDT consistently performs report follow-up activities and has an ongoing process and program evaluation function. Public transportation agencies could use the employee survey included in the MDT case study section as a model format for gaining their valuable input.

At **MTA**, follow-up confirmation communication occurs with the reporting employee within 24-hours, if contact information is provided. However, if the report is provided anonymously, the resultant mitigation measures that were implemented as a result of a report are shared at monthly modal department meetings.

### ***Periodic Process and Program Evaluation***

Providing employees with an opportunity to share their opinions and input on what works best about an ESR system, and what could be improved, introduces one ESR system performance metric on which to base ESR system improvements. The periodic evaluation of processes within the ESR system is important to ensure the ESR system is performing as intended.

**Capital Metro** has included frontline employees, including both bus operators and maintenance technicians, in their efforts to gather feedback on the ESR system, and report that employees voice their support for the program. In addition, Metro has contracted with the Texas Transportation Institute (TTI) to study their ESR system. Part of this process will seek input from Metro employees, including those under the bargaining unit. One of the projected outcomes of the study will be the identification of methods to make the ESR system more transparent, sharing concerns across the entire workforce. One such method would be a central site or repository available to all employees and service providers to access safety reports. Metro continues to examine various options to improve employee reporting and gathering their input. During the interview process, Metro representatives indicated that they have also discussed instituting an employee focus group.

**GTRTA** conducts an annual safety culture survey each summer, which is an opportunity to assess employee satisfaction regarding the non-punitive ESR system. The survey provides employees with an opportunity to provide suggestions on how to improve the ESR system from a user perspective.

Recognizing the importance of employee feedback, **LA Metro** conducted two employee surveys to assist in evaluating the agency's safety culture. In both instances, a consultant was used to interpret the survey responses related to safety culture and the SAFE-7 Program. Based on the results of these surveys, LA Metro determined that the current ESR system works well, and no changes were necessary. The use of employee feedback surveys is a standard practice for LA Metro.

Each year, **MDT** surveys its employees about the ESR system, with participation averaging 5–10 percent. In addition, MDT's audit and compliance section interact with employees on a regular basis and asks about the methods available to them to report hazards. Employees are also asked about any reluctance they may have about repercussions or punitive actions in response to their reporting. MTD representatives indicated that there have been no reports from this effort that reflect concerns about the ESR system and that employees view it favorably.

### ***Third-Party Utilization***

With the exception of public transit agency case studies that have C<sup>3</sup>RS embedded in their ESR options (***MBTA*** and ***SEPTA*** [FRA/NASA] and ***WMATA*** [BTS]) and the anonymous reporting option provided by TriMet through Navex, other case study sites are not using a third party to collect, analyze, report, or maintain safety data.

The background research presented the experience of industries that use third parties and the associated benefits. Implementing a non-punitive ESR system through an independent third party could be a valuable option for transit agencies for whom safety culture is less mature. They can ensure confidentiality, provide an impartial analysis of the reported hazard or event, and prevent the reporter from punitive measures or retaliation by the agency, directors, supervisors, or other employees. The use of a third party may remove any real or perceived barriers to procedural fairness and increase employee willingness to report.

Case study sites recognized the benefits of using an external party to administer and manage their ESR system. A commonly stated benefit was the greater likelihood that employees will report safety events due to the perception that associated punitive or retaliatory consequences would be less likely. In addition, when reflecting on the quantity and flow of report submittals that may increase with SMS implementation and the actions necessary to provide an initial response, investigate the reported event or circumstance, effectively provide feedback to reporter, and track and trend areas of risk, case study sites favorably viewed the use of a third party. However, there was concern voiced about the costs of instituting the program through a third party.

The availability of a national reporting platform, such as those represented in the literature review, may be a consideration. In systems such as BSEE that uses BTS and FRA's C<sup>3</sup>RS, the dissemination of reported risks and associated mitigation or abatement strategies has been beneficial to the participating industries. A national reporting platform for the public transportation industry may advance the safety of this industry.

### ***Training and Program Promotion***

An important aspect of any program or system that is implemented in a transit agency is the inclusion of training and program promotion. Training for an ESR system ensures that all existing, and new employees, understand the ways in which safety hazards can be reported, and the ways the mitigation measures are reported back to the employees that report safety hazards. Promotion is an important element to ensure that adequate use of the ESR system leads to transit agency-wide safety improvements.

To increase reporting, ***Capital Metro*** worked with their marketing and communication teams, vice presidents, directors, and others to develop a strategy for promoting the program. One of the methods they are using is to inform employees of Federal public transportation and passenger transportation laws and regulations that protect them from harassment and

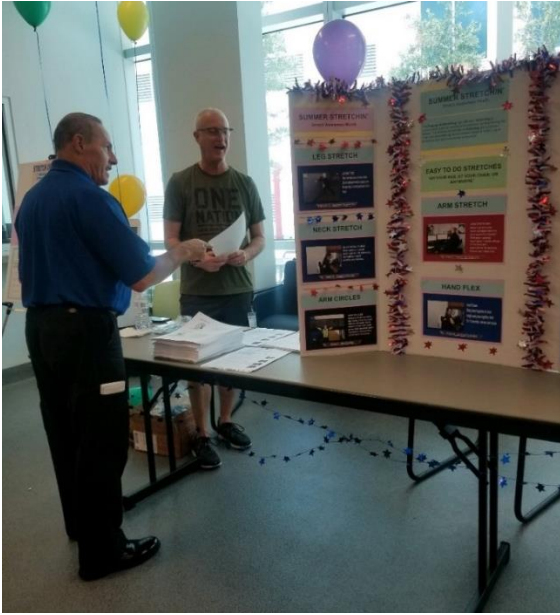
aggression from their employers and direct supervisors when reporting system hazards, close calls, and near misses. Metro stated that they want employees to be confident that they are protected from being fired, harassed, suspended, or treated differently because of their reporting and that there are mechanisms in place to protect them. Further, they want employees to understand that their participation in the program is necessary and that management wants to know when there are concerns or hazards to report.

**GCRTA** promotes the reporting of significant hazards and improvement suggestions through the agency's "Suggestion of the Year" award.

**LA Metro** has a comprehensive new-hire training program that includes the SAFE-7 reporting program and how to submit reports. Additionally, Metro prepared and currently disseminates training materials to all employees. The materials produced, which include a memo, program flyers, pocket cards, FAQs, and brochures describing the ESR system, serve as a form of refresher training and have been effective in preparing employees for the transition to the online form. LA Metro's SAFE-7 pamphlet is an explanatory tool that guides Metro employees through the online ESR system and contains a section of questions and answers to resolve the most typical doubts an employee may have regarding the completion of the form.

**Lee Tran** has a comprehensive training program for their bus operators that includes ESR as a key SMS principle. During these sessions, operators are instructed on the different options to report hazards and near misses using either the hard copy form or the online report form, which is Lee Tran's preferred reporting method. Lee Tran is also in the process of developing a campaign to re-introduce the near miss reporting options and advantages. The campaign will include:

- A digital message board that plays videos of operators and staff demonstrating the ease of filling out a form
- A poster that details what types of events should be reported and why, which is displayed in the operators break room
- A tri-fold poster that displays the near-miss form
- A time clock advisory placed above both time clocks in the operator break room
- An information table, where a Safety Specialist explains the near-miss policy and hands out raffle tickets for a prize drawing that will take place at the end of each week-long campaign (**Error! Reference source not found.**)



**Figure 14. Lee Tran’s Information Table**

**MARTA** developed an E-learning presentation of their program that can be viewed at any time. Transit agencies that are implementing a non-punitive ESR system would benefit from having training options across multiple platforms. E-learning products can be used during initial training or can serve as refresher training for employees that may access modules and progress through the modules at their own pace.

**MBTA** trains employees to report hazards and near-miss events in their New Hire, Occupational Health and Safety, and Right-of-Way Worker training courses. Additionally, MBTA emphasizes hazard reporting via written Safety Flashes and management blitzes.

**MTA** To proactively identify and address potential hazards, MTA provides employees with an SMS card (Figure 15 **Error! Reference source not found.**) that outlines the frontline employee’s role to work safely and wear proper personal protection equipment, remain compliant with procedures and regulations, and report hazards, safety concerns, or safety suggestions.



Figure 15. MDOT SMS Card

At **SCAT**, employee announcements and all labor management meeting minutes explicitly state that “it shall be the policy of Sarasota County Area Transit that any unsafe act, close call, or accidental risky behavior will not be penalized as long as the issues is self-reported prior to a loss. We want to hear about it and prevent future risk!” SCAT introduces their anonymous safety reporting process during new-hire initial training, and the reporting alternatives are refreshed on the “safety television” located in the employee lounge, which displays different safety messages throughout the day.

**SEPTA** has robust training and employee awareness programs that support their ESR system. During new-hire training, SEPTA addresses the importance of identifying and reporting workplace hazards. In addition, 30 minutes of new-hire orientation is devoted to informing employees how to identify and report safety concerns, including the opportunity to do so anonymously. During semi-annual internal employee safety days, generally held in the fall and spring of each year, managers review various safety topics, discuss trends and issues at SEPTA and within the industry, and remind employees of the options they have to report hazards.

One method **TriMet** used to successfully promote frontline employee involvement in their ESR system was through the development of the Bus Operator’s Continuous Improvement Team (BOCIT). BOCIT is instrumental in producing solution alternatives for the various reported RSAs, which provides a unique opportunity to foster employee buy-in from the reporting to the mitigation phase of the RSA process. Since its development, BOCIT has been so successful that

it was awarded the Oregon Governor's Occupational Safety and Health Division award in 2015 for their "extraordinary contributions to the field of workplace safety and health."

### ***Union Participation***

Several of the case study transit agency representatives expressed benefits related to union participation in the development and encouragement of use of ESR systems. When union representation is supportive of ESR efforts and encourages employee participation, the safety culture of an organization can improve through the proactive mitigation of identified hazards.

The **BBB** collective bargaining unit, SMART, was involved from the inception of the reporting program, and SMART union management works in tandem with BBB safety management to encourage employee reporting. Agency representatives reported that the positive relationship between the Safety Department and union management was pivotal in implementing a strong safety culture, which provided the platform on which the safety reporting program could be constructed and implemented.

**Capital Metro** consulted with ATU during the initial design and implementation of the ESR system. Metro provides ongoing opportunities for ATU input and engagement. The local ATU president is a member of the System Safety Committee, where the agency presented the reporting application and the associated procedures and indicated that ATU representatives were pleased with the process and procedures. There is also a labor union representative present at all SMS Committee and other agency safety meetings, where they are afforded the opportunity to review and comment on all plans developed in response to reported concerns prior to implementation.

At **King County Metro**, ATU is actively participating in the current redesign of the employee reporting program. ATU plays an important role in encouraging employees to use the program to report hazards and to provide safety suggestions. Union management are described as supportive of SMS and the positive changes SMS will bring to the agency. The positive relationship established between the organization and the local union has been and continues to be pivotal to the successful maturity of the agency's safety culture. Metro officials offered that their example could serve as a model for other transit agencies interested in understanding how safety culture should work.

**MARTA's** JHSC, which includes an ATU representative, was involved in the development of the program and is responsible for any review or updates to the process. In addition, this body is actively involved in the progression and resolution of Safety 1<sup>st</sup> reports. MARTA also reported that they conducted an in-person "soft survey" with ATU management and union stewards before the rollout of the program to gain input on how to report and how members could use the ESR system. At that time, ATU viewed the ESR system favorably. However, ATU members noted that when reports are given, they want to see action taken.

**MDT's** level and points of input for TWU is highlighted as a model practice. While they were not involved in the initial design of the ESR systems in place, they are very engaged and integrated into the decision-making process. MDT established a Union-Management Safety Committee (UMSC) with membership prescribed by an MDT administrative policy and defined in the CBA, which includes seven TWU representatives. In an effort to ensure participation across the agency, the UMSC also includes Metrobus Operations, Metrobus Maintenance, Metrorail Operations, Metrorail Maintenance, Metromover Maintenance, Track Maintenance, Power, Labor Relations, and Safety and Security. The committee was actively involved in the development of the Report of Safety Concern form.

Union representation assisted **SCAT** management in the development and implementation of the reporting formats used. SCAT's Safety Manager, members of the Safety Committee, and ATU worked collaboratively to define what was needed to develop a non-punitive hazard reporting program. ATU is also included in the Hazard Report review process to ensure anonymity when it is desired.

**SacRT** collaborated closely with their two labor unions to develop and implement the non-punitive anonymous employee near-miss reporting program. ATU represents SacRT's transit operators, while the IBEW represents their mechanics. Union representatives provided input to the design of the forms and were instrumental in spreading the news of the near-miss reporting opportunity and encouraging all employees to report all identified near-miss events and hazards.

**SEPTA** works closely with their labor representatives to ensure continuous improvement in the processes in place. There are over 30 Location Safety Committees (LSCs) at SEPTA, each of which is a union management working group of employees who meet monthly to discuss safety concerns and review accident/injury trends. Employees who are actively involved in the LSCs are encouraged to offer ideas for improvements to the safety reporting processes.

## Chapter 5 – Conclusions and Recommendations for Additional Research

The objective of research was to “produce a compilation of the best practices used in non-punitive employee reporting programs at transit agencies. The best practices would include examples of how non-punitive employee reporting programs benefit transit agencies and their employees and could be used to assist transit agencies with developing their programs.” Rather than “best practices,” researchers identified practices as “leading” when they could stand as model practices due to the effectiveness illustrated through the case study examinations and the literature review. The practices also include those that are common elements in ESR systems that organizations in other industries and agency case studies describe as successful.

### Conclusions

This examination focused on not only policy and procedural aspects but on the safety cultures reflected in the transit agencies where this reporting has been and continues to be successful. Researchers also reported the challenges faced through the implementation phases of ESR system deployment and the benefits an ESR system, as reflected in the background research and the transit agency case study identified successes. A commonality among all case study transit agencies was the recognition that SMS implementation requires a structured formalized ESR system with associated newly developed or updated processes and data-driven analyses against performance measures that support ongoing safety risk management and safety assurance functions.

The transit agency case study interviews, led to a better understanding of the state of the practice of ESR systems at 19 transit agencies across the country, which were chosen to represent a variation in ESR system maturity and sophistication. Data gathered from the case study interviews include:

- ESR system program description
- Policies
- Training
- Stakeholder input
- Barriers to implementation
- Elements of success

### ***ESR System Program Description***

The various case study transit agencies have ESR systems that range in age from less than one year to more than 20 years old, with over 90 percent of the 19 respondent transit agencies indicating their ESR system provides an anonymous safety reporting option, and 85 percent of responding agencies indicating reports can be made confidentially. ESR system reporting methods across all surveyed transit agencies include hard copy/paper forms, online employee

portal, email, hotline, mobile application, in person, and through a third-party system. While the number of ESR system reporting options varies among the surveyed transit agencies, the respondent agencies voiced the importance of ease of access for the employees coupled with the agency's ability to respond to safety hazard reports timely, with communication throughout the hazard mitigation process.

Of all public transportation agencies included as case study sites for this project, **SEPTA** has the most reporting options available to employees while **LA Metro** has a single online submittal method. In both examples, **SEPTA** and **LA Metro** representatives indicated a consistent level of reporting and shared that significant agency improvements were made as a result of the reporting. The success of both ESR systems leads to a key takeaway that the ideal number of reporting options will not be consistently uniform across transit agencies. The optimal ESR system reporting option(s) may vary by transit agency, so environmental considerations should occur when implementing an ESR system at other transit agencies.

### ***Policies***

Of the 19 transit agencies that responded to the survey, more than half (53%) indicated that they have a policy in place that explicitly distinguishes between what type of event is reportable through the non-punitive ESR system and what type of event is considered negligent or illegal actions that may result in discipline, as recommended in TRACS Working Group 16-01<sup>121</sup>. Of the remaining 9 transit agencies, either they do not have a policy instituted or their policy does not distinguish between reportable non-punitive and punishable events.

One example of a policy improvement occurred within **BBB**, where the ESR system, which was first implemented in 2015, and cited as a contributing factor to the improved safety performance of the transit agency when BBB was awarded the APTA 2018 Bus Safety and Security Gold Award for their proactive approach to reducing preventable accidents. Since the initial implementation, BBB rebranded and their ESR system to SHARP, which also included specific policy improvements to clarify details of the SHARP policy, including the purpose of the policy, pertinent definitions, the reporting process, and specific responsibilities.

In the development of their policies, transit agencies may want to consider the guidance that is available, or regulation that applies, from the FRA or the California Public Utilities Commission (CPUC) for example. FTA's SMS Implementation Pilot was a key source for the technical assistance<sup>122</sup> guidance that is currently available for assistance that transit agencies have available to meet the Public Transportation Agency Safety Plan (PTASP) rule (49 Code of Federal Regulations [C.F.R.] Part 673) requirement that public transportation agencies develop an ESR system as part of the SMS Safety Risk Management function.<sup>123</sup>

### ***Training***

An important aspect of any program or system that is implemented in a transit agency is the inclusion of training and program promotion. Training for an ESR system ensures that all existing, and new employees, understand the ways in which safety hazards can be reported,

and the ways the mitigation measures are reported back to the employees that report safety hazards. Promotion is an important element to ensure that adequate use of the ESR system leads to transit agency-wide safety improvements.

Thirteen of 19 surveyed transit agencies indicated that they do not tailor their ESR system training by employment position, while the other six surveyed transit agencies indicated their training varies by employment position, with extensive training provided to employees who are involved with investigations and mitigation implementation.

Many transit agencies contract specific —for example, paratransit services—and, thus, may have contracted employees who report to a separate management company or other subcontractor. Surveyed transit agency representatives were asked if they provide non-punitive ESR system training to their contracted personnel, and a majority (12 of 19) indicated that they do not provide training to their contracted personnel, though contracted employees have the same options to report safety concerns as any other employee at 90% interviewed transit agencies that use contracted services.

Three respondent transit agencies, LA Metro, Maryland MTA, and MBTA, indicated that their contracted employees typically report safety concerns to their respective employers, who then share the details with the transit agency when necessary. However, the transit agency representatives indicated the challenges with access to data in this type of scenario. Maryland MTA representatives mentioned that the agency is currently working with various contracted services providers to transition to MTA’s reporting tools to ensure the maintenance of a centralized all-encompassing hazard log.

In addition to overcoming challenges with the coordination of more than one ESR system, transit agencies are also working to promote the use of the ESR system to increase reporting.

- **GCRTA** promotes the reporting of significant hazards and improvement suggestions through the agency’s “Suggestion of the Year” award.
- **LA Metro** has a comprehensive new-hire training program that includes the SAFE-7 reporting program and how to submit reports. Additionally, Metro prepared and currently disseminates training materials to all employees. The materials produced, which include a memo, program flyers, pocket cards, FAQs, and brochures describing the ESR system, serve as a form of refresher training and have been effective in preparing employees for the transition to the online form.
- **Lee Tran** has a comprehensive training program for their bus operators that includes ESR as a key SMS principle. Lee Tran also holds a safety campaign including digital message boards, posters, advisories, and an information table with raffle tickets for prizes.
- **MARTA** developed an E-learning presentation of their program that can be viewed at any time.

- To proactively identify and address potential hazards, **MTA** provides employees with an SMS card (Figure 15 **Error! Reference source not found.**) that outlines the frontline employee's role to work safely and wear proper personal protection equipment, remain compliant with procedures and regulations, and report hazards, safety concerns, or safety suggestions.
- **SEPTA** has robust training and employee awareness programs that support their ESR system. SEPTA devotes 30 minutes of new-hire orientation to informing employees how to identify and report safety concerns, including the opportunity to do so anonymously. During semi-annual internal employee safety days, generally held in the fall and spring of each year, managers review various safety topics, discuss trends and issues at SEPTA and within the industry, and remind employees of the options they have to report hazards.
- One method **TriMet** used to successfully promote frontline employee involvement in their ESR system was through the development of the Bus Operator's Continuous Improvement Team (BOCIT). BOCIT is instrumental in producing solution alternatives for the various reported RSAs, which provides a unique opportunity to foster employee buy-in from the reporting to the mitigation phase of the RSA process.

Through training and promotion of the use of ESR systems, transit agencies are afforded the potential opportunity to proactively eliminate or mitigate risk due to safety hazards that would not have been identified without an ESR system. The active use of an ESR system, and subsequent feedback and mitigations, lead to an improved safety culture throughout the transit agency.

### ***Stakeholder Input***

Another characteristic of a non-punitive ESR system that is imperative to consider is the role of stakeholder input in the design and implementation phases of a reporting program. Examples of stakeholders include accountable executives, managers and supervisors, operations and safety representatives, and labor union representation. Collective bargaining units played a role in the original design and/or implementation of nearly half, 9 of 19, of the responding transit agencies' hazard or near-miss reporting programs, while 7 of 19 surveyed transit agencies indicated there was no language related to their ESR system included in their CBA.

Several of the case study transit agency representatives expressed benefits related to union participation in the development and encouragement of use of ESR systems.

- The **BBB** collective bargaining unit, SMART, was involved from the inception of the reporting program, and SMART union management works in tandem with BBB safety management to encourage employee reporting.
- **Capital Metro** consulted with ATU during the initial design and implementation of the ESR system and provides ongoing opportunities for ATU input and engagement.

- At **King County Metro**, ATU is actively participating in the current redesign of the employee reporting program.
- **MARTA's** reported that they conducted an in-person "soft survey" with ATU management and union stewards before the rollout of the program to gain input on how to report and how members could use the ESR system.
- **MDT** established a Union-Management Safety Committee (UMSC) with membership prescribed by a MDT administrative policy and defined in the CBA, which includes seven TWU representatives to actively assist in the development of the Report of Safety Concern form.

When union representation is supportive of ESR efforts and encourages employee participation, the safety culture of an organization improves through the proactive mitigation of identified hazards.

### ***Barriers to implementation***

Throughout ESR system development or improvement, barriers to implementation are likely to occur, which can serve as lessons learned for peer transit agencies that may implement similar ESR systems. As efforts are focused on the improvement of system safety from each elemental perspective, it is important to understand challenges, and solutions to the challenges, just as it is important to understand successes. Many of the surveyed case study transit agencies revealed at least minimal barriers to the implementation of their ESR system:

- **BBB's** ESR system was designed to include near-miss reporting as well as safety hazard reporting, yet few of these types of safety reports are received, and the ESR system is mostly used to report safety hazards.
- **Capital Metro** reported lack of anonymity in recordings through the Hotline as the most significant concern they encountered in their outreach to frontline employees, because the current safety culture of the agency has presented challenges in employee trust of an ESR system. Challenges with obtaining contracted employee reported safety hazards was also identified as an ESR system barrier.
- **CTA** indicated that any adversarial relationship between a transit agency and the collective bargaining unit could become a significant barrier to implementation.
- **GCRTA** indicated that the majority of reports that are currently received through the ESR system are minimal in nature, primarily related to issues such as needing replenished first aid kits.
- **JTA** found it necessary to brand the ELERTS See & Say app with their own name to ensure it can be found in app stores and identifiable to JTA. Additionally, specific technological barriers were combated with an informative index card that describes steps to download and use the app.
- **King County Metro** reported the cost of implementation, with specific reference to the ability to demonstrate a return on investment as the key barrier encountered.

- **Maryland MTA** cited the necessary improvement in the safety culture of an organization is the biggest barrier to the implementation of an ESR system. The volume and minimal nature of the safety hazards that are reported reveal room for safety culture improvement throughout the transit agency.
- **MBTA** representatives describe a ripe disciplinary culture and history of punitive reactions as a challenge in implementing a non-punitive ESR system. Thus, gathering the volume of reports necessary to perform trend analyses has been challenging.
- **SacRT** described union pushback as the main barrier in the developmental stages of the non-punitive ESR system. SacRT found it difficult to encourage employees to report any hazards or near miss events prior to the institution of the anonymous reporting option.
- **SCAT** described the tracking of hard-copy forms as a challenge, which they reduced through the introduction of electronic submission alternatives, which also streamline the tracking and trending of hazards reports within the agency. SCAT recognizes that the low volume of safety hazard reports reflects the maturity of the safety culture, noting the necessary level of trust takes time to improve.
- **SEPTA** defined the need for a matured safety culture to ensure that all safety hazards are reported without fear of retaliation or retribution, which is something that SEPTA representatives are working to improve through safety surveys to focus targeted improvement efforts.
- **TriMet** reported the biggest challenge to the implementation of the RSA process was establishing the trust necessary for employees to feel that their voices are heard, their opinions matter, and they can be part of the solution.
- **WMATA** representatives indicated barriers to implementation are mostly related to spreading word that the program exists and how to use it properly.

Some of the surveyed transit agencies revealed similar challenges or barriers, such as immature safety cultures resulting in the need for improved trust, challenges with feedback and follow-up, and challenges with the ability to quantify returns on investments in ESR systems.

### ***Elements of Success***

In creating a culture of safety, the American Public Transportation Association (APTA) cites a non-punitive near-miss policy as one of the indicators for an effective SMS.<sup>124</sup> While safety culture is not changed through short term efforts, many organizations beyond the public transit industry have developed successful ESR systems that can be used as guidance in the public transit industry's transition to SMS, such as:

- FAA's Aviation Safety Reporting System
- NATCA's Air Traffic Safety Action Program
- U.S. Nuclear Regulatory Commission's Allegation Program
- FRA's C<sup>3</sup>RS Program

The surveyed transit agencies also noted many identified successes. While some of the successes may seem minimal, the improvement in safety culture that results from even minimal ESR system successes leads to improvements in safety performance metrics throughout the transit agency.

- **BBB** experienced a decrease in fixed-object strikes that they attribute to the hazard and near-miss ESR system, where a data analysis revealed multiple collisions at one location where overgrown trees were reported to be a hazard. BBB worked with external organizations to have trees trimmed or removed. Operators were encouraged by removal of the hazards and the agency's responsiveness, which led to an increase in reporting over the following six months, a decrease in fixed-object collisions, and fewer vehicle repairs.
- **Capital Metro** has eliminated or mitigated risks that were identified through the tracking and trending of the safety concerns reported through Metro's ESR system. Metro has also invested in an evaluation the ESR system's effectiveness, including the benefits associated with the ESR system. Some hazards that were eliminated or mitigated include:
  - Overgrown vegetation around bus stops that were trimmed or removed
  - Overgrown tree limbs that were trimmed or removed
  - A hole in a walkway that presented imminent hazard for passengers and employees was repaired
  - A Metro BRT station that left customers boarding or alighting vulnerable to collisions with motor vehicles was redesigned.
  - Reports of homeless individuals gathering at transit facilities led to improved park-and-ride lot facility features such as fencing to restrict unwanted access
- **CTA** emphasized that ESR systems are critical for transit agencies to gather the information necessary to manage risk, noting that frontline employees have the best information related to the existing agency hazards. CTA recognizes that all resource constrained environments benefit from targeted prioritization of resources to mitigate the most concerning hazards first and is confident that the information collected through the ESR system will be valuable in the SMS framework.
- **GCRTA's** ESR system reports from employees have led to improved maintenance procedures, which also resulted in asset management benefits using updated asset trees and condition tabs to ensure optimal maintenance attention.
- **JTA** encourages hazard reporting through the See & Say app to improve the autonomy of updating hazard logs and prioritizing resources. Examples of specific hazard elimination or mitigation measures include
  - Lighting improvements at one shelter located on the community college campus were installed after the hazardous condition was reported through the app accompanied by a photo and short video that showed how dark the conditions were.

- An exposed broken drainpipe located near a bus shelter was submitted through the JTA See & Say app along with accompanying photos. The City was able to assess the hazard and respond within a week of the reported hazard.
- Homeless persons who have either permanently encroached on or vandalized bus stops or shelters are also being addressed by the City.
- **King County Metro** noticed a change in the agency’s safety culture, in which employees are more aware of their surrounding and more likely to report issues and have seen an increase in the volume of the reports since the inception of the hazard reporting program.
- **LTD** has implemented many safety improvements as a result of the successful implementation of the Blue Card operator hazard reporting opportunity.
  - A tree limb was reported as a hazardous situation, and LTD worked with the City to get the tree trimmed to remove the hazard
  - A bus stop was relocated to accommodate the safety of a regular customer in a mobility device after an operator reported the unsafe condition
  - Lighting at bus stops was replaced
  - Erroneous route information bus head signs were reprogrammed
  - Leaks were repaired at the transit agency restroom facilities
- **LA Metro’s** accident data collection system was the impetus for two very important and impactful agency-wide changes— the installation of a pilot program that involves the installation of gates that controls left-turn movements along new light rail corridors to reduce collisions with motor vehicles and pedestrian warning barriers implemented on the Blue Line.
  - The left-turn gates along the light rail corridors close the left-turn lane for motor vehicles when the traffic light for the left-turn movement is red and the train is approaching. Due to the success of these gates, they are LA Metro’s design standard for their Crenshaw Line scheduled to open in 2020.
  - LA Metro has invested \$34 million in pedestrian warning strategies at the grade crossings. This includes the use of small gates that close simultaneously with the vehicular gates described above. With these gates, the intersection is completely sealed when a train is approaching, as it crosses the intersection, and as it clears the intersection. This investment has led to a considerable reduction in pedestrian versus train events.
- **MBTA** understands the importance of establishing and encouraging a mature safety culture, which will support a well-developed and fully utilized ESR system. They also connect mature safety culture to the ability to gain a better understanding of the overall risk of operations from frontline workers and subsequently focus limited resources to areas that present the greatest risk to the agency. Some examples of specific hazard mitigation measures at MBTA include:
  - The installation of the railing at a set of stairs leading to the right-of-way without any return

- A mitigation was instituted to keep an identified tripping hazard off the ground
- Lighting configurations were improved with additional trackside headlamps to allow better views for the nighttime track workers
- MBTA also purchased upgraded flashlights for their track workers that provided better illumination
- Software on a specific bus was updated to remove a manufacturer error
- **MARTA's** Maintenance Department repaired reported potholes that were causing damage to bus suspensions, wheels, and structural elements, resulting in mitigated damages to their transit buses. MARTA personnel also developed a mitigation strategy that allowed bus operators to maneuver on a particularly challenging apartment complex property with less risk.
- **MDT** representatives provided two examples of ESR system reporting that led to improved safety.
  - MDT modified its practices during a construction period, disembarking passengers in an area with better lighting
  - MDT rerouted an existing bus route to avoid a very tight right-turn, that led to reported close calls
- **SCAT** is an example of a transit agency with a successful informal hazard reporting process. Although the program is not mature in its policy development, the process has matured and improved overtime. The ESR system is at least partially credited with the reduction of exposure to potentially violent situations. SCAT credits their success to thorough follow-up with anyone who reports and the engagement of the Safety Committee and the entire agency through newsletters and videos. Illustrated examples include:
  - The closure of a minimally used bus stop after a report was received detailing the garbage and loitering issues at the stop
  - Overgrown trees that were blocking operator views and those of waiting passengers were trimmed
  - Route change/scheduling improvements
  - The implementation of de-escalation training
- **TriMet** successfully promoted frontline employee involvement through the development of BOCIT, which is instrumental in producing solution alternatives for the various reported (requests for safety assessments) RSAs and provides a unique opportunity to foster employee buy-in to the ESR system. Safety reports led to:
  - An ergonomic study of all 3000-series buses, which ultimately led to a reduction in the width of the steering wheels from 20 inches to 18 inches for easier use, the kneel/ramp switch was relocated off the dash, and the control handle was upgraded to reduce repetitive strain
  - Key indicator lights were brought down to the dash from the overhead light board for ease of view, and turn-signal light buttons were widened so the left foot could fit between them

- Fare boxes were lowered, and pedestals were removed to increase visibility
- Mobile data terminals (MDT) were moved closer to the operator for easier reach
- The glare from interior lights was reduced using red diffusers and configuration changes
- Bus mirror configuration was adjusted to improve operator line-of-sight
- **WMATA** has implemented many documented preventive safety actions to improve system safety, which resulted from employee safety reports:
  - Improved communication methods for new-hire training
  - Switch-movement communication improvements between rail operations control center and the roadway worker in charge
  - Increased awareness of train operator procedures for entering the shop
  - Establishment of a logbook for all company vehicles, including maintenance records, to reduce the likelihood of operating defective vehicles
  - Bulk-head door seals improved on the 2000 and 3000 series rail car models to reduce water infiltration
  - *Controller Handbook* updated to include a malfunctioning decision-making matrix
  - A median was trimmed, and no parking signs were installed by a local jurisdiction to create more turn space for bus operators
  - *Roadway Access Guide* revised in the *Right-of-Way Worker Protection Manual* to reflect accurate descriptions of risk throughout the system
  - Training instituted on proper disposal of wastewater to deter Plant Maintenance employees from dumping into track beds
  - Stinger System (power supply for rail vehicles located in maintenance and repair areas) decibel levels adjusted from a piercing sound to a comfortable level for shop workers
  - Older bus shuttles replaced with newer buses to reduce obstruction issues for operators

While the surveyed transit agencies are all working towards improved safety cultures, many have displayed elements of success through the ESR systems implemented at their transit agencies. These elements of success should be used as examples of the benefits that other transit agencies have the potential to obtain from the implementation of an ESR system at their agency.

### **Recommendations for Additional Research**

In the background research, researchers identified the benefits associated with wide dissemination of commonly reported hazards and methods to address them. In each example, reports are collected, trends and emerging safety/environmental concerns are identified, safety risks that present systemic industry concerns are established, and potential causal factors in near-miss events are presented. Aggregated statistical reports are made available to the

industry and the public. National reporting systems such as the ASRS, FRA's C<sup>3</sup>RS, SafeOCS, OSHA, NATCA, and NRC all provide national stakeholder dissemination. A central repository of public transportation industry reported hazards, close calls, and near-miss information may present an opportunity to improve the safety of the nation's public transportation industry and establish the effectiveness of the National Public Transportation Safety Program and the SMS framework. **Research to examine the options available to develop this data portal or produce aggregated national reports would be beneficial.** One of the methods identified may be the use of a third-party data collection and analysis platform.

The research recognizes the benefits of using an external party to administer and manage an ESR system, which includes increasing the likelihood that employees will report safety events and reducing the likelihood that there will be associated punitive or retaliatory consequences. In addition, when reflecting on the quantity and flow of report submittals in response to SMS implementation, case study sites favorably viewed the use of a third party. However, there was concern voiced about the costs of instituting the program through a third party. Two transit agencies suggested that a centralized national third-party ESR system (or option) would improve the effectiveness of close call reporting for all public transportation agencies and lead to better safety outcomes. **This presents a research opportunity to develop a strategy for examining opportunities for a national employee safety reporting system for the public transportation industry and the steps that the industry can take to institute such an ESR system.**

The report contains resource materials from the case study sites that were included in this research effort. **The industry would benefit from a "Non-Punitive Employee Safety Reporting" toolkit or online resource repository** that could build upon the sample policy statements, marketing/outreach materials, sample procedures, and sample CBA or MOU language included as a part of this project, which public transportation agencies could use as they develop and implement their ESR systems. While the case studies included public transportation agencies with long-standing ESRs, many of those transit agencies are in the processes of revising and/or formalizing their policies and procedures. This is an area where guidance is needed in the form of sample tools and resources.

Finally, TRB's Special Report 326, *Admissibility and Public Availability of Transit Safety Planning Records*,<sup>125</sup> discusses evidentiary protections for safety planning records, which would include employee safety reporting data collected and maintained by public transportation agencies through SMS practices performed in accordance with the requirements of 49 U.S.C. § 5329. The committee recommended that evidentiary protections be extended to public transportation agencies. Further, the committee provided a specific recommendation to the U.S. Congress:

Congress should prohibit, by establishing an admissibility bar, the introduction of the records generated by public transit agencies in fulfilling the safety planning requirements of MAP-21 into legal proceedings. This bar should apply only to data,

analyses, reports, and other similar information prepared in response to or used in support of the MAP-21 mandate and FTA's corresponding safety program requirements.<sup>126</sup>

It is important that employees who report and public transportation agencies collecting, analyzing, and maintaining safety data in support of SMS are assured the data can remain confidential. **Without evidentiary protections, the ability of an agency to protect employee-submitted data or accident/incident data is limited. The more protections granted to employees, including industry evidentiary protections, will ensure greater reporting and, in turn, safer public transportation agencies.**

## Appendix A – Case Study Narratives

### Big Blue Bus – Santa Monica, California



#### ***ESR System Program Description***

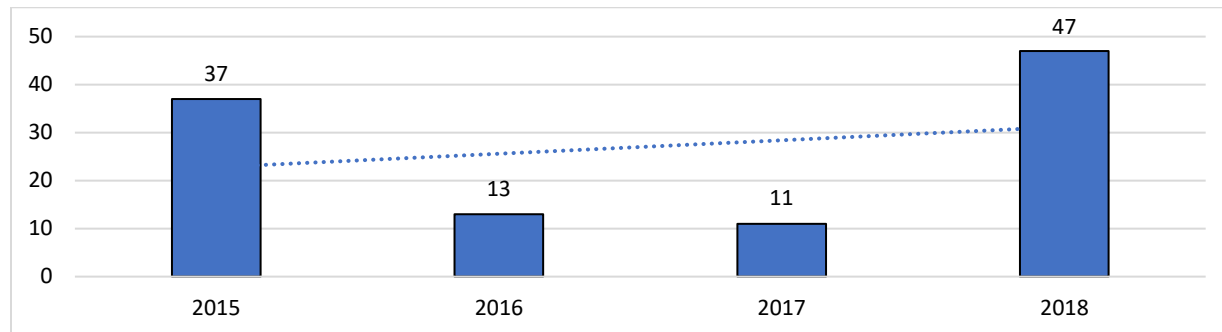
BBB implemented a non-punitive near-miss and hazard reporting program in 2015, where employees can report dangerous occurrences, hazards, and near-miss events. Employees can report safety issues in three ways—via hard copy forms, in-person reporting, and, as of February 2019, through an online employee portal using Microsoft SharePoint or by email. An employee can report hazards or other safety-related events anonymously using the hard copy forms if they choose to omit their name on the form. In December 2019, BBB approved an updated program, branded as the Employee Safety Hazards and Analysis Reporting Program (SHARP). The updated program formalized many of the previously-established characteristics of their hazard reporting program that was first introduced in 2015.

The newly-updated SHARP policy was established “to provide staff with a streamlined method of communicating safety hazards, near-miss incidents, and other safety concerns that is non-punitive, is flexible and easy to access, provides timely and accessible feedback, and is a vehicle for change.” The SHARP policy explicitly applies to all BBB staff, regardless of location or job description. The policy also defines key terms and the reporting process, as shown in Appendix D.

APTA awarded BBB with the 2018 Bus Safety and Security Gold Award for their proactive approach to reducing preventable accidents. The approach included the 2017 relaunch of BBB’s Hazard/Near-miss ESR system, in addition to other system safety enhancements, such as a comprehensive and interactive accident review and retraining process, a rail safety education campaign, and mandatory quarterly safety meetings for all operators.<sup>127</sup> Their approach to reducing preventable accidents resulted in an 18 percent reduction in preventable accidents and a 78 percent reduction in passenger injuries between 2015 and 2017. By the end of 2019, BBB rebranded their Hazard/Near-miss ESR system to SHARP and clarified details of the policy, including the purpose of the policy, pertinent definitions, the reporting process, and specific responsibilities.

SHARP includes agency-issued bulletins informing the operators how to use the program. Information about the program was also shared at various regular meetings, including the mandatory quarterly safety meetings and safety committee meetings. Additionally, management continuously encourages reporting during all safety meetings, committee

meetings, and “tailgate” meetings, which occur at the beginning of maintenance shifts and provide an opportunity for supervisors to reiterate safety reminders and updates to share with frontline mechanics. As a result, the number of employee reports increased 27 percent between 2015 and 2018, as shown in Figure 16.



**Figure 16. Number of Employee Safety Reports by Year at Big Blue Bus**

BBB’s Transit Safety and Security Officer reports to the Safety and Training Manager, who is the agency’s designated Chief Safety Officer. The Safety and Security Officer manages SHARP in-house, and all outcomes and resolutions are shared during the quarterly safety meetings without mention of the reporting employee’s name.

#### *Related Policies or Procedures*

The SHARP policy outlines the process that an employee should follow when a hazard is observed or near-miss occurs. The policy defines a near-miss as “an incident resulting in neither an injury nor property damage, but is an event that, under slightly different circumstances, could have been an accident. A near-miss could also be called a ‘close call’ or a ‘near collision.’” Additionally, a hazard is defined as “any real or potential condition that can cause injury, illness or death; damage to or loss of the facilities, equipment rolling stock, or infrastructure of a public transportation system; damage to the environment; or reduction of ability to perform a prescribed function.”

The SHARP Report Form (Figure 17) provides employees with a convenient method to report identified potential hazards or near-miss events to their supervisor to allow action to be taken to eliminate or control the hazard. Guidelines in the SHARP Responsibilities section indicate that employees should record all hazards and near-misses on the SHARP form and submit to either dispatch, the employee’s supervisor, online through MyInfoBlue, or directly to the Safety and Training Division in-person or via email. An employee may submit a report anonymously through the MyInfoBlue by leaving the employee name section blank.

The information collected on the SHARP Report Form include the date, time, location and description of the hazard or near-miss event. Additional information collected includes the employee name, number, department, and job title. The form provides employees the opportunity to include recommendations to mitigate or eliminate the hazard or near-miss

event. The bottom portion of the form allows BBB to identify when a report was sent to another department for correction, who investigated the report, and any final resolution or action that was taken in response. The back of the form provides space for the agency to document the date on which each resolution process step was taken.



- Please use this form to report any safety concerns, hazards, or near-miss incident.
- SHARP Report Form may be submitted to Dispatch your supervisor, via MyInfoBlue, or directly to the Safety & Training Division in person or via email at [BBBSafety@smgov.net](mailto:BBBSafety@smgov.net).
- Form may be submitted anonymously.

## SHARP Report Form

Date Submitted: \_\_\_\_\_

### TO BE COMPLETED BY EMPLOYEE

Date of Incident: \_\_\_\_\_ Time of Incident: \_\_\_\_\_

Name of Employee: \_\_\_\_\_ Employee No. \_\_\_\_\_

Dept./Div./Section: \_\_\_\_\_ Job Title: \_\_\_\_\_

Description of Hazard/Near-Miss/Safety Concern: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Location of Reported Issue: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Employee Recommendation(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Once form is completed by employee, forward to Safety and Training Division

Attachment A-1



or eliminate the risk and provide awareness to all staff members. The Safety and Security Officer engages in follow-up activity directly with the individual who made the report. BBB safety personnel share resolutions with all operators at the quarterly safety meetings.

Although BBB designed the program to be a hazard and near-miss reporting program, agency representatives indicated that the majority of reports are hazard reports, and near-miss reporting remains low. The majority of hazards that are reported through the program include low-hanging tree branches, missing equipment, and potholes along the route.

Subcontracted employees use their own ESR system, and BBB does not currently receive near-miss information from their subcontractors. If non-employees recognize a hazard, they are encouraged to report it to an operator.

### *Post-Reporting Follow-Up Activities*

If an employee provided their name on the SHARP Report Form, the Safety and Security Officer will engage in follow-up activity directly with the individual who made the report. The Safety and Security Officer will email the resolution to the employee who reported the hazard. The employee is also provided with a hard copy of the resolution in their mailbox. Additionally, the resolution is shared in the campus at quarterly safety meetings and at the “Safety Corner,” an area in each building where employees will find all safety-related bulletins, posters, and announcements.

While BBB has established no formal performance metrics to measure the effectiveness of the hazard and near-miss reporting program, the agency did witness a decrease in fixed object strikes, which representatives attribute to the mitigations that were incorporated as a result of the employee reporting program. Additionally, as an improvement to the previous hazard reporting program at BBB, all SHARP report information is entered into the SHARP Master Log to allow for future trend analyses. Tracking all information from the SHARP program will allow for holistic investigations into recurring themes that arise, while also providing an opportunity to examine the timeliness and effectiveness of the corrective actions and subsequent communication feedback loops.

### *Training*

BBB provides tailored instructor-led training to their bus operators, supervisors, maintenance, and administrative personnel that describes the hazard and near-miss reporting procedures; as mentioned previously, it is discussed at quarterly safety meetings. The training content introduces program reporting procedures, defines hazards and near-miss events, and provides guidelines on the program. The agency also provides annual refresher training that includes hazard and near-miss program updates.

### *Stakeholder Input*

SMART was involved from the inception of BBB’s reporting program, and union management works in tandem with BBB safety management to encourage employee reporting. Agency

representatives reported that the positive relationship between the safety department and union management was pivotal in implementing a strong safety culture, which provided the platform on which the safety reporting program could be constructed and implemented.

Employees have the opportunity to provide feedback to improve the ESR system during the quarterly safety meetings and more formally during Safety Committee meetings. Quarterly safety meetings include presentations from the Safety and Training Manager and Operations Superintendent to an audience of motor coach operators, motor coach operator supervisors, and training coordinators. In addition to the quarterly safety meetings, there are also monthly Safety Focus Group meetings, Campus Safety Committee meetings, and Service Delivery Safety Committee meetings where employees can voice their opinions. While the agency has not developed and issued a formal employee acceptance survey, the Safety Focus Group, which includes the Safety and Security Officer, a planning team member, and an operations supervisor, has reported that the employees view the hazard and near-miss reporting program favorably and have appreciated the information communicated back through the ESR system.

BBB used resources provided by FTA in developing their SMS and Hazard/Near-Miss Reporting Program, which led to the development of two safety committees, referred to as Safety Share. Safety Share includes the Campus Safety Committee and Service Delivery Safety Committee. The Campus Safety Committee consists of a safety and training manager, Safety and Security Officer, two maintenance technicians, a motor coach cleaner, a maintenance supervisor, a maintenance trainer, a maintenance manager, a city safety officer, and a facilities officer. The Campus Safety Committee is tasked with ensuring that the BBB campus remains safe for all maintenance and facilities personnel. The Service Delivery Safety Committee, comprised of the Safety and Training Manager, Safety and Security Officer, five motor coach operators, a motor coach operator supervisor, a city safety officer, and an operations superintendent, is tasked with ensuring the safety of all motor coach operators. It is during these Service Delivery Safety Committee Meetings that operators are provided a formal opportunity to provide feedback to the management team. The Accident Review Committee is separate from the BBB safety committees and consists of a Safety and Security Coordinator, a union representative, a motor coach operator, and a third party, the Santa Monica Police Department.

### ***Barriers to Implementation***

The key barrier to implementation reported by BBB personnel was the type of information that is currently reported on the Hazard and Near-Miss Report Form, as near-misses are not typically reported. While the procedure was designed to include near-miss reporting, the agency is receiving few of these reports.

### ***Elements of Success***

As noted earlier, BBB experienced a decrease in fixed-object strikes that they attribute to the employee hazard and near-miss ESR system. In 2017, representatives began analyzing accidents by type, revealing the most frequent collision type were collisions with fixed objects, which

included low-hanging branches, electric boxes, and other various fleet fixed objects and agency infrastructure. A further analysis found that multiple accidents were occurring at the same location. Once the agency assessed the information, they distributed it to the team and external agencies to have trees trimmed or removed, as an example. Operators were encouraged by removal of the hazards and the agency's responsiveness. BBB suggested that this ongoing responsiveness led to an increase in reporting over the following six months and a decrease in fixed-object collisions, including those with low-hanging tree branches. While BBB has not specifically calculated the specific cost savings associated with these mitigations, they stated that the reduction in fixed-object collisions led to safer bus operations and fewer vehicle repairs.

## Capital Metro – Austin, Texas



### ***ESR System Program Description***

Capital Metro has adopted the SMS approach to safety, and central to this approach is the agency's ERS, implemented in August 2017. Employees, contractors, or service providers have the option of reporting hazards or safety concerns associated with Metro's fixed-route bus, demand-response, or commuter rail systems online or through the Safety Reporting Hotline and may submit a report anonymously. Metro personnel manage the collection of submitted reports and all activities required to resolve reported concerns; no third parties are used. They also have a close call ESR system that operators can use to immediately report safety and security hazards to Metro's radio control. This also allows radio control to communicate directly with the operator to gather additional information related to the event or hazard. While these reports are documented in a separate database, the data are integrated into the ESR to allow an effective dissemination of reported agency hazards and other concerns. Metro does not use hard copy reporting forms and indicated that the reason for this is related to document control, adding that hard copy forms could be misplaced, lost, or incorrectly routed.

### ***Related Policies or Procedures***

Metro is in the process of establishing a formal ESR policy. However, the agency currently has a well-framed, structured reporting process described in the following section. Capital Metro's bus operators and maintenance technicians are contractor employees and the use of the ESR is a standard requirement written into Metro's contractor agreements.

### ***Reporting Practices***

Metro employees and its contractor employees may report safety concerns online at <https://app.capitalmetro.org/safety> or through the Hotline at (512) 852-SAFE. If an employee elects to submit a report online, they may establish a "safety account" that will provide Metro the opportunity to respond directly to the reporter and allow the reporter to monitor the processing of the report. Capital Metro's policy is to provide a response to reporters within 30 business days of report submittal. If the reporter does not create a safety account or submit through an existing safety account, the report will be anonymous. An employee who uses the unmanned Safety Reporting Hotline has the option of leaving a message anonymously, or they may provide contact information. Metro will review messages left on the Hotline within 24 business hours.

The online process includes a series of steps reflected in the screen shots below, starting with the initial log in screen shown in Figure 18. Figure 19 provides the second step in the online process. Reporters are instructed to select "No Login" if they wish to remain anonymous. Metro

employees and contracted employees will then have the option of selecting the type of report from a drop-down menu. Reporting choices include a safety concern, a security concern, a close call, or other, as shown in Figure 20.

**METRO** Home Contact Report a Concern Login

\* Fields are required.  
**Create**  
Do you want to create a login? Create Login

**Personal Information**

- User Name
- Password
- Confirm Password
- First Name
- Last Name
- First Security Question
- Answer
- Second Security Question
- Answer

Figure 18. Initial Login Screen

**METRO**

\* Fields are required.  
**Create**  
Do you want to create a login? No Login Create Login

Type Of Report Safety Concern

Incident Date MM/DD/YYYY

Incident Time (12 Hour Format(HH:MM)) : AM

\* Incident Location (Be as specific as possible)

Route

Vehicle Number

\* Subject

\* What happened? (Description)

What do you think should be done about this?

Would you like to be contacted? no contact

Figure 19. Creating a Login and Beginning the Reporting Process

**Figure 20. Selected Type of Report**

Employees are instructed to provide as much information as possible and be specific about the concern or event. If the employee was reporting an unsafe behavior or close call of a peer employee, that would be documented in the event description section of the online form. The online form has fields that must be completed for the report to be processed (items marked with an asterisk in Figure 21). Employees are also asked to indicate the method by which they prefer to be contacted.

**Figure 21. Online Employee Reporting Required Fields**

### *Post-Reporting Follow-Up Activities*

Once the safety concern has been submitted, the ESR Program Manager reviews the report and forwards the content of the report to the department and/or Metro service provider assigned the responsibility of investigating the concern and providing a response to the reporter. At this point, the Program Manager modifies the concern status from “open” to “in progress.” The department assigned to investigate the report has to respond with a resolution within 10 days of the assignment, and a response to the reporter must be provided within 30 days. During this

time, the program manager monitors activities, ensuring the disposition of the report by the end of the 30-day period. If the assigned department is unable to provide a resolution to the reported concern, the program manager submits the concern to Metro's Safety Committee or relevant committee(s) to seek resolution.

During each monthly meeting, the Safety Committee discusses the reports submitted, reporting trends and the resolution of those concerns. On a quarterly basis, the project manager submits a report to affected departments and service providers that identifies the number of reports submitted, those that are in process and closed, and the resolution of the reported concerns. Through the tracking and trending of the safety concerns reported, Metro has noticed an increase in the reporting of growth of vegetation around bus stops and tree limbs that interfere with the bus route.

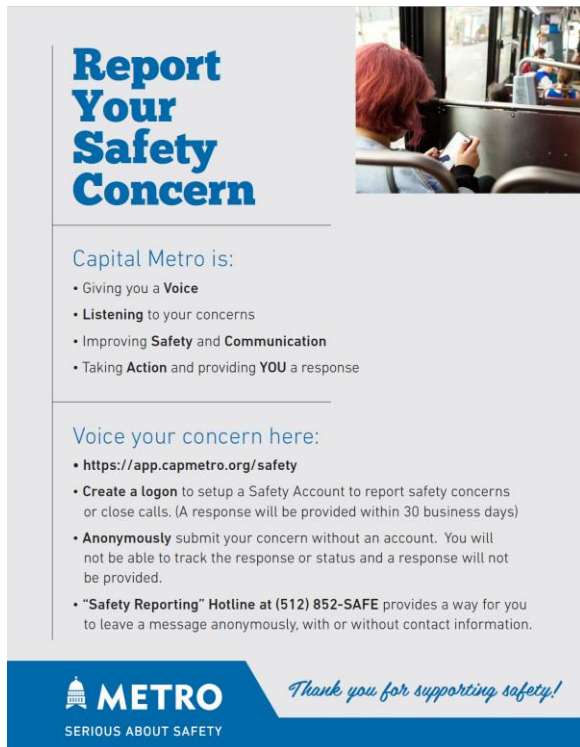
### *Cost of Implementation*

The cost of developing the custom online application was \$13,000. Metro is in the process of developing ESR 2.0 that will include a number of improvements, including the option of allow reporters to submit photos of the hazard or concern. There may be costs associated with this modification that are presently unknown. Metro did not provide additional cost data, and the agency has not performed a return on investment analysis.

### *Training*

In preparation for the ESR implementation in 2017, Metro's contractor provided hands-on training to its frontline employees (operators and maintenance technicians) at kiosks located in employee breakrooms. The contractor created a PowerPoint presentation that provides step-by-step instructions on how to report a safety concern. The contractor also promotes the ESR system through regularly-scheduled safety meetings. Metro representatives added that the ESR system was built to be very simple, requiring little training, therefore, they rely on promotional materials posted at agency facilities, such as the example provided in Figure 22. They also provide wallets cards that bus operators and maintenance technicians can keep with them at all times.

In an effort to increase reporting, Metro worked with their marketing and communication teams, vice presidents, directors, and others to develop a strategy for promoting the program. One of the methods they are using is to inform employees of Federal public transportation and passenger transportation laws and regulations that protect them from harassment and aggression from their employers and direct supervisors when reporting hazards, close calls, and near-misses. Metro stated that they want employees to be confident that they are protected from being fired, harassed, suspended, or treated differently because of their reporting and that there are mechanisms in place to protect them. Further, they want employees to understand that their participation in the program is necessary and that management wants to know when there are concerns or hazards to report.



**Figure 22. ESR System Poster**

### ***Stakeholder Input***

ATU is the collective bargaining unit at Capital Metro. They were consulted during the initial design and implementation of the ESR but were not actively involved in its development. Capital Metro provides opportunities for labor union input and engagement. The local ATU president is a member of the System Safety Committee, where the agency discussed the reporting application and the associated procedures and report that the union was well-pleased. There is also a labor union representative present at all SMS Committee meetings and other agency safety meetings, where they are afforded the opportunity to review and comment on all plans developed in response to reported concerns prior to implementation.

Metro also directly reached out to frontline employees, including both bus operators and maintenance technicians, who also voiced their support for the program.

Metro has contracted with TTI to study their ERS. Part of this process will seek input from Metro employees, including those in the bargaining unit. One of the projected outcomes of the study will be the identification of methods to make the ESR system more transparent, sharing concerns across the entire workforce. One example provided by Metro representatives was the ability to place report updates on a central site available to all employees and service providers. Metro is examining various options to improve reporting and gathering employee input. Options they are considering are establishing an incentive program that would provide employee recognition in agency newsletters or other information sharing platforms and giving

the reporters “swag” or other gifts. They have also discussed instituting an employee focus group.

### ***Barriers to Implementation***

Metro representatives did not report specific barriers to implementation but did reference some challenges. In some of the engagement with frontline employees, there were concerns expressed that recordings through the Hotline would allow them to be identified as the reporter. Metro reported this as the most significant concern they encountered in their outreach to frontline employees.

The culture of the agency, especially for employees who have been with the agency for some time, has presented challenges. The interviewee stated that, historically, employees felt management was not listening to their concerns, with events and hazards reported with no resolution. They added that this perception is difficult to modify but is an important challenge that should be recognized and addressed. For employees to report, they should be confident that their concern will be addressed. However, they did add that it is important to manage expectations. Hazards that are reported, such as overhanging tree branches (a frequently reported hazard) that require the involvement of outside agencies, such as municipal or County public works offices, can add to the amount of time necessary to correct the hazard or reported concern.

While not a barrier, Metro shared their concern that their contracted operator may be using their own separate ESR system. They have been diligent in working with their contractor to express the need for Metro to be the clearinghouse for safety concerns expressed through employee reporting. They stated that they are not receiving the report volume originally envisioned, which they suggested may be due to reports submitted through the contractor’s ESR system.

While these challenges could present barriers to effective implementation of the ESR system, understanding them when a transit agency is initially designing and establishing the ESR system can assist them in addressing these challenges prior to implementation.

### ***Elements of Success***

Metro representatives reflected on a recent opportunity to engage all employees, including bus operators, adding that they were able to see success from that engagement. One of their union stewards voluntarily said he was going to take all employee reporting cards and make sure that he handed them out to the operators. Following this meeting, he reported to Metro management that he had distributed all of the pocket cards and was “trying to drum up interest.” He further provided a positive warning that they “would likely be overwhelmed” with the amount of reports submitted.

Metro representatives indicated that the online ESR system has been successful, providing options for reporters with the ultimate goal of increasing the number and frequency with which

employees submit reports. Through the tracking and trending of the safety concerns reported, Metro has noticed an increase in the reporting of growth of vegetation around bus stops and tree limbs that interfere with the bus route. Overgrown vegetation around bus stops has the potential to obstruct visibility, causing both safety and security concerns. Additionally, tree limbs that interfere with an operator's ability to navigate the assigned bus route may increase risk associated with the necessity to change lanes to avoid contact with the tree limb, contribute to delays, or even result in costly repairs that must be made to a bus if the operator failed to avoid the interfering tree limbs. Therefore, Capital Metro considers the increase in this type of hazard reporting and subsequent hazard mitigation an element of success.

Metro reflected on a few of the other reported hazards or safety concerns that led to recognized safety improvements. These included a report submitted by one of Metro's bus checkers of a hole in a walkway that presented imminent hazard for passengers and transit personnel. Metro corrected this hole to mitigate potential injury. A second example resulted in a change to bus stop placement. In this example, the design of a Metro Bus Rapid Transit (BRT) station included the placement of a bus stop that left customers boarding or alighting vulnerable to collisions with motor vehicles. In this design, passengers had to cross two lanes of traffic to get to the bus stop island and when the bus was at the stop, motor vehicle operators were preventing from being able to safely turn right. Metro corrected this quickly and the stop is now safer for both passengers and motor vehicle operators.

Finally, operators submitted reports of homeless individuals gathering at transit facilities; they noted that their presence made them feel threatened. In response, Metro's recently opened park-and-ride lot includes fencing to restrict access to the facility for those who are homeless.

As mentioned previously, Metro has contracted with TTI to evaluate the program's effectiveness, including the benefits associated with the ESR system.

## Chicago Transit Authority – Chicago, Illinois



### ***ESR System Program Description***

CTA is part of a pilot program sponsored by FTA established with the purpose to pilot the implementation of an SMS at CTA and in other small bus transit agencies in Illinois. As part of this project, CTA implemented a Non-Punitive ESR System in December 2014. Prior to instituting the program, CTA performed a comprehensive examination of existing ESR systems and they recognized two successful programs, FRA's C<sup>3</sup>RS and FAA's ASRS programs managed by NASA.

Currently, CTA employs an anonymous voicemail ESR system called Safe Line where employees can report safety concerns. Every call received will have a follow-up within 24–48 hours. Follow-up activities associated with anonymous calls are published in the employees' break room, and safety personnel investigate the safety concern. In addition, employees who leave their contact information have the certainty they will have a report of follow-up activity regarding the issue reported. The ESR system is largely used by employees as one means of communication with the agency. However, CTA observed that this phone line is used more to report issues and safety concerns, such as hazards that were identified, rather than close call events. Therefore, there is room for improvement to transition the anonymous voicemail into a self-reporting ESR system, promoted as an SMS component.

The Safety Department is the only unit that has access to Safe Line data, and they handle the program in-house, stating the volume of the issues reported does not justify the use of a third party to manage and operate the program at CTA. In addition, they also reflected that outsourcing the service to a third party might result in additional concerns for the agency.

### ***Related Policies or Procedures***

CTA has a policy that regulates the use of Safe Line and stipulates the requirements for follow-up activities associated with submitted reports.

### ***Reporting Practices***

Safety Department personnel, which generally includes a safety officer and two safety managers, check Safe Line voicemails daily. These individuals are the only ones who have access to the ESR system. Once the Safety Department has investigated the concern reported, an initial report is completed and, depending on the issue, appropriate staff members are engaged to determine the solution. While the Safety Department is the leader of these efforts, they may

not be responsible for resolving the issue. This responsibility often lies on the subject matter experts assigned within CTA's operational groups.

Once the issue has been resolved, the Safety Department disseminates the report, including its solutions, through safety bulletins, safety meetings, and employee notification boards. For those concerns not reported anonymously, the Safety Department directly contacts the reporter.

CTA's contractors report safety concerns using the same ESR system used by CTA employees. Additionally, riders and general citizens can report their concerns through a separate line called 411CTA. This is the line used to report security issues and customer complaints.

### *Post-Reporting Follow-Up Activities*

As noted earlier, CTA conducts follow-up activities for every report submitted. If the employee provides contact information, CTA shares activity made on the issue reported and the status of the concern to that individual. If the problem was reported anonymously, all follow-up activities are published in company safety bulletins, which are shared during the recurrent safety meetings and posted on employee boards.

### **Training**

At CTA, training is a crucial element that influences the performance of new and veteran employees. The first day of training, during the orientation portion of the instruction, each employee is informed of the existence of the Safe Line. In addition, instructors perform a live demonstration of the Safe Line. Employees of each mode (bus and rail) are encouraged to add the Safe Line number to their contacts, so it is easily and quickly accessible when needed. After initial training, employees are reminded and retrained on the Safe Line every time they undergo a refresher safety training. Moreover, posters, cards, and each safety bulletin issued by the CTA provide instructions on how to use Safe Line.

### **Stakeholder Input**

CTA collectively bargained with ATU Local 241 and Local 308, which have been involved in the implementation on the Safe Line. They are actively participating in the development of CTA's SMS program. As part of the framing of their SMS and associated ESR system, CTA management researched existing programs and conducted interviews with a number of agencies and organizations. Research and engagement included numerous transit industry stakeholders, such as WMATA and FTA. CTA also investigated ESR systems outside the transit industry, including FRA, FAA, United Airlines, air traffic controllers, and NASA, to understand these ESR systems. They concluded that a non-punitive ESR system would be at the core of CTA's SMS program.

CTA recognizes the importance of verifying that any safety program is properly implemented and ensuring compliance with the established program goals. Therefore, they periodically survey employees on their perception of safety. However, CTA has not conducted specific surveys seeking employee input on the Safe Line.

### ***Barriers to Implementation***

CTA did indicate that an adversarial relationship between a transit agency and the collective bargaining unit could become a significant barrier to implementation. As reflected in the background research performed for this study and the information obtained from case study sites, involving these units early in the process can help overcome some of these barriers. CTA indicated they would appreciate help from FTA or APTA in leading the effort to create a centralized ESR system that will serve all transit agencies and lead, in their opinion, to better safety outcomes.

### ***Elements of Success***

CTA representatives emphasized that ESR is critical for transit agencies to gather the information necessary to manage risk, noting that frontline employees have the best information related to the existing agency hazards. CTA recognizes that all resource constrained environments benefit from targeted prioritization of resources to mitigate the most concerning hazards first. CTA is confident that the information collected through the employee safety reporting opportunities will be valuable in the SMS framework.

CTA's participation in the FTA's SMS Implementation Pilot program provided unique opportunities for the agency to learn from the Chicago O'Hare International Airport ESR system, the Air Traffic Safety Action Program (ATSAP). FTA, FAA, and NATCA presented CTA with examples of effective ESR systems in an effort to assist their ESR system development and implementation. Through the involvement in the pilot, CTA representatives were able to glean some lessons learned about the entire pilot process. First, CTA recognized that although everyone will own the safety risk management process eventually, it might be necessary for the safety department to own and champion the process initially to ensure consistency. CTA representatives understood the importance of focusing on the process, not the results in order to make sure they were establishing a holistic and implementable process. They added that transit agencies should consider process refinement and should gather input from all stakeholders to ensure the risk management process is working as intended. Finally, CTA representatives indicated that transit agencies should understand the constraints of their safety risk management process and set explicit expectations upfront to obtain management support.

## Greater Cleveland Regional Transit Authority – Cleveland, Ohio



### ***ESR System Program Description***

In 2011, the Greater Cleveland Regional Transit Authority (GCRTA) implemented a non-punitive safety reporting policy that addresses employee reporting of systems hazards and risks. The associated Hazard and Reporting Procedure (GCRTA SOP #8.1) allows employees to inform the agency about safety concerns in two ways—via a telephone line called Safety Hotline and through a hazard reporting form that is routed to the Safety Department. In both cases, employees have the option to report anonymously, or they can leave their contact information. The number of hazard reports submitted has been steady since 2015, and GCRTA is planning to integrate the procedure with the ongoing implementation of their SMS and PTASP, as mandated by FTA. Data collected through the employee safety reporting system are collected and maintained by GCRTA. The agency does not use a third party for their hazard reporting and management.

The Executive Safety Committee (ESC) handles all open hazards and consists of representatives from the GCRTA departments of safety, engineering, operation districts, training, legal, human resources, service quality, IT, and marketing. The ESC processes hazard reports but does not manage or assign disciplinary actions. Therefore, they are neutral and are perceived as a trustful reporting entity within the agency. The ESC is responsible for follow-up activities regarding any open report until the reported issue has been resolved. To promote the ESR system, GCRTA has established the “Suggestion of the Year Award” that recognizes employees who submitted concerns that led to great changes for the organization or for the community.

### ***Related Policies or Procedures***

The Hazard Reporting and Management Procedure provides definitions of the purpose and objectives of the SOP and guidance on various reporting mechanisms available to report conditions that may be safety critical and outlines the process adopted to have uninhibited reports of incidents, hazards, occurrences, and risk that may compromise safe operations. The goal of this policy is to provide a process to identify safety hazards and track the actions taken to mitigate them. It provides a standardized method for categorizing, tracking, and resolving hazards and reducing incidents and injuries through the resolution of the identified hazards. To this extent, the procedure provides an ESR system by which employees and management have a reporting process and are able to track each reported hazard until it has been abated or mitigated. The Hazard Reporting and Management Procedure also explicitly defines that the policy does not apply to information provided to GCRTA from a source other than the employee or to illegal acts or deliberate or willful disregard of agency regulations or procedures. Finally,

the policy includes a series of attachments, such as the Hazard Report form, a matrix to classify hazards, and a flowchart that outlines the procedures to resolve the hazards reported.

The information collected on the Hazard Report form include the date, time, location, and description of the hazard or near-miss event. Additional information collected includes the employee name, number, department, and job title, which are marked as optional information to guarantee the anonymity of the report. Finally, the employee has an opportunity to provide recommendations to mitigate or eliminate the hazard or near-miss event. The bottom portion of the form allows GCRTA to identify when a report was sent to another department for correction, who the report was investigated by, and any final resolution or action that was taken in response to the report. GCRTA’s Hazard Report form is shown in Figure 23.

FORM 72-461 REV 04/28/04		<b>RTA</b> GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY	
RATING	<b>HAZARD REPORT</b>		CONTROL NO.
<b>SECTION I - ORIGINATOR</b>			
1. Badge No. (optional):	2. Name (optional):	3. Date: / /	
4. District/Hazard Location:			
5. Describe Hazard and its Effects:			
6. Suggested Corrective Action:			
<b>SECTION II - SUPERVISOR <input type="checkbox"/> SAFETY COMMITTEE MEMBER <input type="checkbox"/></b>			
7. Received by:	8. Dept.:	9. Date: / /	
10. Recommended Corrective Action:			
11. Interim Remedial Action Taken:			
<b>SECTION III - SAFETY COMMITTEE</b>			
12. Chairperson:	13. Date: / /		
14. Hazard Rating: Severity:	Probability:	Cost:	Rating:
15. Recommendation:			
16. Forwarded to:	17. Date: / /		
<b>SECTION IV - RESOLUTION</b>			
18. Name:	19. Date: / /		
20. Action:	A. Completed <input type="checkbox"/> B. Deferred <input type="checkbox"/> C. Retained As Is <input type="checkbox"/>		
Comments:	Do Not Write In This Block		21. Date Closed & Initials:
Distribution: Original: Safety Committee Chairperson, Copies: Department Head, Safety Committee, Originator			

Figure 23. GCRTA Hazard Report Form

### *Reporting Practices*

Employees and contractors can report safety concerns anonymously or they can leave their contact information. If the report is not anonymous, the Safety Department will follow-up via phone call, email, or in person. If the report has been submitted anonymously, follow-up activity will be reported and discussed in bi-monthly meetings with the Local Safety Committee. GCRTA's contractors have the same options as regular employees to report hazards they may encounter while working on agency property and may also use specific reporting procedures that are included in contract clauses, if provided. The general public can use the agency webpage to file a customer complaint, which may include hazards.

Employees may complete and deposit Hazard Report forms in a Hazard Report box located at each GCRTA operational district. The hard copy forms are reviewed daily by local district managers and, when possible, resolved at the lowest management level prior to escalation to the Safety Department. All resolved hazards are discussed at local Safety Committee meetings. If the reported hazard entails an expensive mitigation measure or a significant time or resource investment, it is escalated to the Safety Department. Safety personnel or other personnel that the Safety Department deems experts in the topic are responsible for addressing the report and reducing, mitigating, or eliminating the hazard. Once the issue has been resolved, the department or subject matter experts assigned the responsibility of completing the progress must provide the Safety Department a report of the actions taken to address the hazard. The Safety Department then finalizes the report of the steps taken to address and mitigate the hazard. The Director of Safety discusses all reported hazards with the Safety Committee during bi-monthly scheduled meetings. If the identified issue is not resolved, discussions occur until a resolution is provided and the case can be considered closed. Reports of hazards that are received through the Safety Hotline voicemail are checked daily by the Safety Department, which logs and tracks all hazards through completion.

GCRTA's vendor trains accident investigators and supervisors with investigative responsibilities to use their product, which provides a root-cause methodology to aid in the investigation of hazards and events. The methodology aid provides a flow chart that may be used to identify the root cause of an accident, incident, or hazard and ultimately assist in the mitigation of the risks associated with the identified hazards. This root-cause analysis is applied to each agency activity, including procedures, training, quality control, communication, management system, human engineering, and work direction. Personnel with hazard resolution responsibilities are provided with a pocket book that investigators may use to note the answers to the questions highlighted in the corresponding causal chart so they can develop a report with corrective action plans that prevent a recurrence or mitigate the potential for occurrence of similar incidents. The product vendor offers a five-day initial training followed by two days refresher training every two years.

### *Post-Reporting Follow-Up Activities*

GCRTA generates and delivers a cumulative report of all outstanding ranked hazards to local districts, where the individuals who are responsible for initiating and completing the abatement activities. Local districts provide status updates to the Safety Department at least bi-monthly. GCRTA shares open rail hazard reports with the Ohio Department of Transportation, which serves as the State Safety Oversight Agency (SSOA), and the information is presented at the Executive Safety Committee meetings every other month.

The individual responsible for each abatement action reviews the report that was initially submitted, submits evidence of completion of the resolution and sends associated documentation to the Safety Department for final notation and closure on the Hazard Tracking Reporting Log. Once the Safety Department confirms the resolution, the agency gives a “Closed Residual Hazard” ranking to the hazard, stating the new hazard category.

### ***Training***

GCRTA does not tailor their non-punitive hazard reporting and management procedure training by position within the company. All employees are informed during new employee orientation of the various methods available to report hazards. GCTRA’s contractors receive the same non-punitive hazard reporting policy training that all new employees receive prior to employment.

### ***Stakeholder Input***

In 2011, GCRTA conducted a survey of executives and supervisors that established a baseline for improving the safety culture within the agency. Survey participants agreed that encouraging hazard reporting was paramount in improving the safety culture of the organization. This focus toward improved safety culture led to the implementation of GCRTA’s hazard reporting process. GCRTA management implemented the non-punitive ESR system without direct ATU negotiations.

Employees may provide feedback to enhance the ESR system anytime using the Safety Hotline and the Hazard Report form.

### ***Barriers to Implementation***

GCRTA has not encountered significant barriers to the implementation of the program. However, representatives indicated that the majority of reports that are currently received through the ESR system are minimal in nature, primarily related to issues such as needing Band-Aids in a district first aid kit.

### ***Elements of Success***

GCRTA has been deliberate in the promotion of the non-punitive reporting benefits, especially to district management staff, to ensure that no animosity creeps into the safety culture. GCRTA boasts that one of the most important leading indicators is the encouragement of all employees to identify and report hazards and potentially hazardous conditions without fear of reprisal.

Any employee who believes they have been retaliated against is encouraged to contact OSHA. Hazard reports from employees have led to improved maintenance procedures, which also resulted in asset management benefits using updated asset trees and condition tabs to ensure optimal maintenance attention.

GCRTA is also promoting the reporting of significant hazards and improvement suggestions through their "Suggestion of the Year" award, which is provided to an employee who the CEO feels has reported a hazard or suggested other agency improvement that ultimately led to significant changes. This award is given annually and is available through reports received through the Safety Hotline, the Hazard Report form, or verbal reports provided to supervisors or the Safety Department. If a hazard were submitted with a suggested mitigation measure, then the person who submitted the hazard would be entered as a candidate for the Suggestion of the Year Award.

## Jacksonville Transportation Authority – Jacksonville, Florida



### ***ESR System Program Description***

The Jacksonville Transportation Authority (JTA) implemented the ELERTS communication system in January 2018, which they branded as the “JTA See & Say” app. The mobile phone application can be downloaded to any mobile device at no cost to the user. Additionally, the app includes a “text a tip” number for employees and customers who do not have data service on their mobile devices.

In addition to the app, JTA has a hazard line that employees can call to report any hazard, and they have the option to do so anonymously. The hazard line has been in place for many years and was instituted prior to the hiring of the JTA representative who the research team interviewed. As such, information on the initial design and implementation of the program was limited.

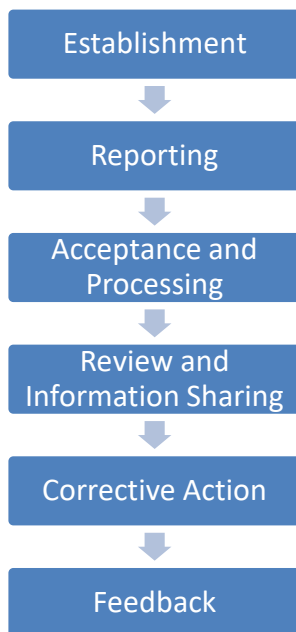
JTA’s close call reporting is voluntary and confidential and provides protection from disciplinary action for employees who submit a qualifying report. This protection is in place to encourage employees to report all safety concerns “without fear of potential discipline, reprisal, dismissal, or legal discovery” to ensure that JTA can accurately and thoroughly identify all potential areas of concern, and implement subsequent solutions or mitigation measures prior to an collision or injury taking place. Close call reporting allows JTA to know about otherwise unreported unsafe acts, providing the opportunity for safety assessments and opportunities to strategically improve JTA’s safety performance.

### ***Related Policies or Procedures***

JTA is currently developing a draft non-punitive ESR system policy. Within that draft policy, a close call is defined as a situation or circumstance that had the potential for safety consequences but did not result in an adverse safety event. Knowledge about a close call presents an opportunity to improve safety practices and culture. Within the draft policy, JTA has outlined the concept of operations for a confidential, non-punitive, close call ESR system, as shown in Figure 24. JTA’s draft policy provides an appendix with examples of events that could qualify for confidential non-punitive close call safety reporting in both rail and bus environments. Examples of the types of events that would qualify in a rail transit environment include:

- Doors opening on the wrong side
- Overshooting or bypassing a station

- Split switch incidents
- Signal run-through incidents
- Doors opening when train is not properly berthed
- Running through any required stop
- Speeding
- Improper flagging
- Failing to blow the horn when required
- Going through a grade crossing with broken gates without stopping
- Operating on the wrong track
- Operating beyond authorized limits
- Failure to protect adjacent track when necessary for safety
- Non-compliance with wayside rail transit worker protection rules
- Third-rail or overhead catenary system power-related incidents



**Figure 24. JTA’s Concept of Operations for a Confidential, Non-Punitive, Close Call Safety Reporting System**

Examples of the types of events that would qualify for confidential, non-punitive, close call safety reporting in a bus transit environment include:

- Overshooting or bypassing a bus stop
- Traffic signal run-through incidents
- Running through any required stop
- Speeding
- Failing to blow the horn when required
- Going through a grade crossing with broken gates without stopping

### *Reporting Practices*

JTA logs all hazards, close calls, and near-misses into their hazard logs and the cloud-based data management system where they store and analyze their hazard and incident data. Contracted employees have the same hazard reporting options as all JTA employees, and employees may report any hazard they witness, even if it involves another employee. Information reported through the hazard line, through the JTA See & Say mobile app, or any other means of reporting, is logged into Trackit, and hazards that are reported are also entered into the hazard log. JTA uses the data management as documentation of the initial report of a safety event or occurrence.

All reports received are monitored by an employee in the Risk Department, who is responsible for assigning the reported concern to the appropriate department for investigation and response. The Safety and Security Department can also see the reported concerns. JTA instituted several checks and balances in their reporting program through the assignment of follow-up responsibilities across the Dispatch Center, the Risk Department, the Safety and Security Department, and the private security force.

When reports of concerns are received through the See & Say app, an automatic response is generated to inform the reporter that their concern was received. Additional follow-up information can be provided through the app to inform the reporter when the mitigation measure has been implemented and the concern has been closed.

### *Post-Reporting Follow-Up Activities*

Once the appropriate department is assigned to respond to a reported concern, that department is responsible for reviewing and implementing mitigations or solutions to the concern and then reporting back to the Risk Department via email, entering the information in the hazard log and reporting the solution in the data management software. JTA has a goal of closing out a reported hazard within seven days of receiving the report. When the volume of reported concerns increases, JTA uses the Military Standard 882 Risk Assessment Matrix to determine the level of risk associated with the hazard and establish the priority order in which each concern will be addressed.

Follow-up is subsequently conducted at 30, 60, and 90 days after the mitigation measure was instituted to ensure that the mitigation has worked as intended and not contributed to or caused separate issues. This follow-up practice is in place to ensure that the implementation of a solution does not lead to the introduction of any unintended additional hazards. JTA reports that this incremental follow-up has improved employee morale and buy-in to the hazard reporting process, as it has shown frontline employees that management is working with them to reduce hazards. Through the tracking and trending of the hazards that have been reported to JTA, the agency has witnessed an increase in hazards related to unruly customers and homeless camps at bus shelters.

### *Costs of Implementation*

JTA pays a fee of \$24,000 annually, which is one of the many levels of services available from ELERTS. This cost includes the ability to see all reports, communicate back to the reporter, and forward reports via email to responsible departments within the transit agency. The See & Say app also serves as a mass communication system for employees and the public.

### ***Training***

The JTA See & Say mobile app for reporting hazards, near-miss events, and close calls is introduced during new-hire training and at quarterly safety meetings and is also provided to contracted service employees such as paratransit operators. Training is tailored by employment position at JTA, as employees responsible for implementing mitigation measures are provided more training than employees who are only responsible for reporting concerns.

### ***Stakeholder Input***

JTA employees, safety and security personnel, and dispatch and operations personnel were actively involved in the design and implementation of the hazard reporting line when it was first implemented. JTA implemented the See & Say app as a method to improve the dissemination of agency hazards or safety occurrences to multiple representatives within the agency simultaneously to aid in the review of hazards, incidents, accidents, and occurrences. Prior to the implementation of the app, dispatch was required to call several people to notify them individually of an incident that was taking place. With the implementation of the app, dispatch can contact several different people simultaneously with the same message, thus improving the overall performance and response time of the agency. The app also provided the ability to submit non-punitive employee reporting on the same application that the riding public was using.

JTA surveyed their employees to gain an understanding on the rate of acceptance and found that employees appreciate the ability to report concerns through the mobile phone app.

### ***Barriers to Implementation***

Through an employee survey, JTA found that there were specific technologically barriers preventing older adult operators and riding public from downloading and using the app. To combat this issue, JTA developed an index card (Figure 25) that describes the necessary steps to download and use the app. This index card is used in new-hire training, and additional hands-on assistance is provided as needed.

One lesson learned from JTA, which was not necessarily a barrier because it was recognized early, was the necessity to brand the ELERTS See & Say app with their own name to ensure it can be found in app stores and identifiable to JTA.



Figure 25. JTA See & Say Index Card

### *Elements of Success*

JTA representatives expressed that to be effective, all parties should work together to improve safety, and the ESR system should make all participants feel comfortable reporting their concerns without fear of potential discipline, reprisal, dismissal, or legal discovery. A close call ESR system, at its best, is an opportunity for employees and management to collaborate in achieving a higher goal—safety. An accident or an injury affects everyone, so it is essential that employees and management work together toward building a non-punitive close call ESR system. The launch of the See & Say app was, in essence, a rebranding of the ability to report hazards to the agency, which expanded the reporting capabilities from only employees to all stakeholders, including the riding public. Additionally, encouraging hazard reporting through the See & Say app improves the autonomy of updating hazard logs.

A report submitted through the See & Say app led to lighting improvements at one particular shelter located on the community college campus. The employee that reported the hazardous condition was able to report the lack of lighting through the app and submit the report with a photo and short video that showed how dark the conditions were. After the report was received, the lighting configuration at the shelter was improved, eliminating the hazard.

The See & Say app has also been beneficial when the entity required to respond to the hazard is not the transit agency. One reposted hazard that was reported through the See & Say app was an exposed broken drainpipe located near a bus shelter. The broken drainpipe was in the City of Jacksonville’s jurisdiction; therefore, JTA reported the hazard to the City, along with accompanying photos that were submitted with the hazard report made through the See & Say app. The City was able to assess the hazard and respond within a week of the reported hazard. Additional issues that have been reported through the See & Say app are associated with homeless persons who have either permanently encroached on or vandalized bus stops or shelters, which the City has been addressing.

One additional advantage of the See & Say app is the transit agency's ability to send out alert messages to specific employees and to the riding public who have downloaded it. JTA uses the app to send simultaneous alert messages to specific employees—for instance, who should respond to an incident that resulted in transport from the scene—all at one time rather than requiring dispatch to call and repeat the same message to each employee who needs to be notified. JTA has also used this app feature to send safety campaign messages to the riding public. One campaign message was sent when hurricane season started to inform the public of the start of the season and encourage proper storm season preparation activities. Another campaign was the Airbag Recall Repair Month, which provided a link to [CheckToProtect.org](http://CheckToProtect.org) for owners to verify if their model vehicle had a defective airbag.

## King County Metro – Seattle, Washington



### *ESR System Program Description*

King County Metro (Metro) implemented a non-punitive reporting program called the Safety Information Report (SIR) Reporting System a few decades ago. Metro's SIR, internally referred as Green Cards for the bus mode and Yellow Cards for rail, were tailored to frontline employees, but is used by everyone at the agency to report both safety and management hazards across the transit agency. Additionally, Green Cards serve as platform to provide safety suggestions. Metro encourages employees to use this reporting method, ensuring no threat of discipline or retaliation for submitting the form.

The implementation of Metro's SMS forced the agency to revamp the Green Card ESR system, which includes efforts to move it to an online ESR system. Currently, employees have multiple means to report safety hazards, near-misses, and safety suggestions. The SIR and email options allow for anonymous reporting, as they are sent directly to designated administrative staff the Safety Office for review and processing. They can send an email to a specific address accessible by the safety department that manages the program, or they can complete a paper form available in all operation locations, maintenance shops, other facilities, and break rooms. Metro is implementing a cloud-based data management system called Origami, which will satisfy the agency's SMS program requirements, and all safety reporting, including Green/Yellow Cards will be part of this new ESR system. Origami's platform can receive, record, and analyze data regarding collisions, near-misses, security events, and safety hazards. Metro, supported by the implementation of this ESR system, established a long-term goal of reducing collisions and employee injuries by 10 percent per year for 5 years. During the last 2–3 years, as the agency was introducing SMS into functional areas of the organization, they promoted the SIR and observed an increase in the level of quantitative and qualitative reporting.

Presently, Metro manages the SIR Reporting System in-house, and all outcomes are shared during monthly Safety Committee meetings without mention of the reporting employee's name. They will continue directly managing this program after digitalization of the program has occurred. Currently, Metro is engaged in internal discussions about the use of a third party to scrub the personal information from safety reports if the reporting party requests anonymity.

### *Related Policies or Procedures*

Metro outlines its safety information reporting processes and procedures in two company policies, the Safety Management Policy and the Accident Prevention Program. In both, accidents, incidents, and near-misses are defined according with the NSC guidelines in use at the agency since 1982.

Metro policies do not distinguish between what is reportable through the non-punitive reporting and what is considered negligent or illegal actions requiring discipline. This distinction is currently limited only to the Drug and Alcohol Program. However, it will be expanded as the SMS becomes fully integrated in the agency procedures and as Metro trains and educates employees on their roles related to safety responsibilities and hazard reporting.

### *Reporting Practices*

Once an employee submits the report, via email or using the paper form, it is routed to the Safety Office, where the safety officer on duty reviews the report and directs it to the appropriate department, depending on the affected worksite. SIRs in hard copy can also be submitted through frontline supervisors, who forward the submission to the Safety Department through the previously described procedure. Once the department receives the form, they examine it and take the appropriate steps to correct the issue or to mitigate it. At this point, the department closes the report and notifies the Safety Department, which will communicate the resolution to the submitter of the report, if contact information was provided. For reports submitted anonymously, Metro will post remediation or mitigation activities in the employee break room and other locations where employees can see it. During monthly safety meetings, issues reported and those resolved are discussed.

Metro has not established a review team to review the data recollected in these safety reports. However, the new Safety Data Management System is designed to do so and, once implemented, it will capture all this information.

Metro contractors do not follow Metro's procedure because they use their own ESR system, which is monitored by the agency. However, they plan to unify the ESR system as SMS implementation advances.

### *Investigation and Follow-Up Activities*

Metro is dynamic in correcting the issues reported and communicating the actions taken to mitigate or eliminate hazards. Anonymous report resolutions are published in safety bulletins and posted in employee break rooms at each facility. All employees who generate hazard reports are contacted and informed of the status and resolution of the issue reported.

Metro is in the process of designing and implementing Origami to comply with their SMS requirements. This improved ESR system will have a revised and enhanced ability for employee reporting functions. The examination and implementation of this new ESR system received inputs from test teams consisting of frontline staff, frontline supervisors, other agency stakeholders and safety staff, which helped in the design of tools and processes.

### **Training**

Metro has tailored their current training program by employment position. However, once Origami has become fully implemented, the agency is expecting to modify their training program, providing the same type of instruction to all employees. Presently, Metro provides

information regarding SIRs and their use during initial training, in the employee orientation session, and during refresher onboarding training. Additionally, monthly safety meetings serve as opportunity to discuss the correct use of the ESR system.

### ***Stakeholder Input***

Metro personnel interviewed for this research did not know if local unions were involved in the implementation of the SIR Reporting System from its inception. However, there is active labor participation in the current redesign of the program. Additionally, ATU plays an important role in encouraging employees to use the program to report hazards and to provide safety suggestions. Union management are described as supportive to SMS and the positive changes SMS will bring to the agency. The positive relationship established between the organization and the local union has been and continues to be pivotal to the successful maturation of the agency's safety culture. Metro officials offer that their example could serve as a model for other transit agencies interested in understanding how safety culture should work.

The development and implementation of Origami also involved frontline staff, frontline supervisors, other agency stakeholders, and safety staff through the creation of test teams tasked with revising and enhancing the ESR system. They also helped with the design of tools and processes for ESR system execution. Metro does not use employee surveys to improve the effectiveness of the ESR system; however, employees can use the Green Cards to provide comments about the program.

Currently, Metro does not have performance measures in place to track the efficacy of the ESR system; however, once Origami is fully operational, it will be used track the effectiveness of the ESR system. The agency is not planning to contract out the data management that will be generated, because they want to have full authority and interaction with the data they will gather.

### ***Barriers to Implementation***

The key barrier reported by Metro personnel was the cost of implementation, with specific reference to the ability to demonstrate a return on investment. They are employing cost analysis studies to track the actual cost of the ESR system, including its utilization and management and the effective benefits it can bring to the agency in terms of accident reduction and liability cost abatement. Union representatives and senior management have been very supportive and cooperative, making the transition from the old ESR system to the new one very smooth.

### ***Elements of Success***

While Metro currently does not track the effectiveness specifically attributed to the SIR or Origami (not yet fully implemented), they will be establishing, tracking, and trending performance measures once Origami is fully implemented. However, they have noticed a change in the agency's safety culture, in which employees are more aware of their surrounding

and more likely to report issues and have seen an increase in the volume of the reports since the inception of the hazard reporting program. King County Metro does not have specific awards linked to the ESR system other than the regular Safe Driver Award conferred yearly.

## Lane Transit District – Springfield, Oregon



### ***ESR System Program Description***

Lane Transit District (LTD) has two different non-punitive ESR systems. Blue Cards are exclusively for bus operators to report anything they consider unsafe along the route, at bus stops, in the bus, or at bus terminals; the Blue Card system was implemented approximately 20 years ago. The Hazard Card System is for other staff members, maintenance personnel, yard workers, and contractors and was implemented 15 years ago. In addition, the public also can report hazards and safety concerns directly to operators or road supervisors, they can use the form available on the agency social media, or they can report their safety concerns through the telephone line connected directly to LTD's Customer Service Department.

LTD is currently revising the existing non-punitive ESR system as part of SMS implementation. During this effort, they are planning to develop a more effective and sophisticated non-punitive ESR system where they can effectively track the reports received by volume and by severity, identify main areas of concerns, and proactively address accident prevention, as SMS principles mandate.

### ***Related Policies or Procedures***

LTD's non-punitive reporting activities, including reporting methods, follow-up activities, data collection, and development and tracking of corrective actions to eliminate or mitigate issues reported, are outlined in two policies and LTD's CBA with the ATU Local 757. The policies, the *LTD Operator Policy and Procedure Manual* and the *Administrative Employee Handbook*, are made available to drivers online and in hard copy form. These documents highlight the distinction between the issues that can be reported through the non-punitive ESR system (Blue Cards and Hazard Cards) and actions considered negligent or illegal that require disciplinary actions. The roles of the Safety Committee, comprising 11 members from different departments and two director-level senior management members, are also provided in the policies.

### ***Reporting Practices***

Bus operators use the Blue Cards, and other LTD employees use the Hazard Cards. They follow two separate processing paths once submitted. Bus operators use the Blue Cards to submit safety concerns and hazards. Operations Department administrative staff analyze the report and route resolution responsibility to the appropriate department. Blue Card reports may be directed to the Safety Department where mitigation prioritization may be increased based on assigned levels of risk of the reported hazard. Issues that are deemed urgent are resolved immediately, while the others are discussed during monthly Safety Committee meetings. The

Safety Committee is tasked with determining the pertinent action(s) to take in response to each report. Safety Committee meeting minutes are public and posted throughout the organization when available.

Hazard Cards are submitted to the Human Resources (HR) Department where they are initially analyzed by a supervisor or by the Risk Manager, who redirects the complaint to the appropriate department, which will take the pertinent actions to correct the issue. Once the concern is corrected it is sent back to the HR Department for follow-up activities. The HR Department can also request the assistance of the Safety Department to prioritize the report received. Corrective actions are taken depending on the severity or level of risk assigned to the reports. Issues reported deemed urgent require immediate action, while others are discussed with during LTD's Safety Committee meetings following the same process as Blue Card reports.

The Customer Service Department handles reports submitted by the public, and they are routed to the appropriate department, where the investigation and corrective action process follow the same procedure used for the Blue Cards and Hazards Cards.

#### *Post-Reporting Follow-Up Activities*

LTD representatives indicated that they do not consider the reports received as confidential since they can affect the safety of the entire agency. However, they do allow anonymous reporting. Once the designated person or department solves the issue, the report is closed and goes back to the Operations Department if submitted as a Blue Card or HR if submitted via a Hazard Card. In both cases, if the originator provided contact information, they are provided detailed information about the solution of the case. If the originator of the report is unknown, the report is closed, and no further action is required. However, Safety Committee meeting minutes note the reports that have been resolved and the actions taken.

#### **Training**

LTD provides training on the non-punitive ESR system to all employees during the first day of orientation. In addition, operators are provided with eight hours of mandatory refreshing training annually, where several topics are presented, including the non-punitive ESR system. LTD also offers tailored training according to employee roles and positions.

Contractors are informed of the need to meet Federal and State safety regulations in their contracts. They are also trained on the LTD non-punitive ESR system. Contractors are required to compile Hazard Cards in the same way as company employees.

#### **Stakeholder Input**

The non-punitive ESR system was implemented 20 years ago, and the initial input provided during program implementation is not available. However, employees are offered the opportunity to provide input on the SRS at any time using the same cards they use to report hazards and safety issues. In addition, LTD recently conducted an employee opinion survey on the ESR system, and the company received positive feedback.

### ***Barriers to Implementation***

Since the non-punitive ESR system was implemented 20 years ago, LTD personnel were unable to provide information regarding barriers encountered during its implementation.

### ***Elements of Success***

LTD has implemented many safety improvements as a result of the successful implementation of the Blue Card operator hazard reporting opportunity. When a bus operator reported that a tree limb presented a hazardous situation, the agency was able to contact the City and get the tree trimmed to remove the hazard. Another successful improvement involved the relocation of a bus stop to accommodate the safety of a regular customer in a mobility device after an operator reported the unsafe condition using a Blue Card. Additional improvements that were instituted due to Blue Card reports include the replacement of lighting at bus stops, reprogramming of an erroneous route information bus head sign, and leak repairs at the transit agency restroom facilities.

With the many successful mitigations instituted as a response of Blue Card reports, LTD bus operators confirm that management is listening to their reported concerns and committed to systemic safety improvements.

**Los Angeles County Metropolitan Transportation Authority –  
Los Angeles, California**



***ESR System Program Description***

Los Angeles County Metropolitan Transportation Authority (LA Metro) implemented a non-punitive ESR system called SAFE-7 over 20 years ago. The Safe-7 System is a hazard near-miss ESR system that encompasses the processes and resources employees use to report safety concerns and hazards while also providing a method for management to identify, evaluate, and correct or avoid hazards holistically through corrective actions. In January 2019, they created an online version of SAFE-7. Employees can use the online version to report hazards and near-misses they encounter agency-wide. LA Metro installed desktop computers at each division and provides access to every employee. In this way, all employees may readily access the ESR system to complete the SAFE-7 form informing the agency of any unsafe condition or near-miss incident. Employees may make SAFE-7 reports anonymously and with impunity. However, there are some rule violations at LA Metro that automatically result in discipline, in accordance with the terms of the respective CBAs.

LA Metro manages the ESR system completely in-house and does not use any third-party vendor or consultant to analyze the data the ESR system generates. The Safety Department was involved in the design of SAFE-7 and manages all aspects of the ESR system in its entirety, including the identification of program or process changes and implementing any modifications that may be needed.

***Related Policies or Procedures***

LA Metro's System Safety Program Plan includes a safety policy that regulates the reporting process. This policy obligates every employee to report unsafe conditions encountered on the agency premises, including any type of near-misses. The same policy also mandates management to investigate any event reported through SAFE-7 and inform the originator of the report the status of his claim.

LA Metro's SAFE-7 procedure defines "near-miss" as an unplanned event that did not result in injury, illness, or damage but has the potential to do so. "Hazard" is defined as any source of potential damage, harm, or adverse health effects on something or someone.

LA Metro's safety policy does not include a distinction between items reportable through the non-punitive ESR system and infractions considered negligent or illegal that require discipline, such as drug and alcohol violations. However, there are specific major infractions governed by the SMART CBA that can lead to suspension or discharge, such as insubordination, drug and

alcohol violations, ADA violations, falsification of reports, and infringements on the wireless communication policy.

### *Reporting Practices*

When a near-miss or incident has occurred or a hazard is identified, employees are required to immediately alert the responsible supervisor/manager through the SAFE-7 system at <http://safe7.metro.net/>. Employees may enter their contact information, or they have the option of submitting the report anonymously (Figure 26). Employees may report hazards or near-miss events that occur on Metro property or not on Metro property, as illustrated in Figure 27. The SAFE-7 system prompts employees to select the category of the hazard, presented in Figure 28, or may select that they are reporting a near-miss event.

Employees are asked to include a narrative description of the hazard (or the condition or act contributing to a hazard) and provide a possible solution. If an employee was reporting an unsafe behavior of a peer employee, the narrative description is where that information would be captured. Reports of peer employee behavior are handled in the same manner as any other hazard or unsafe behavior.

When the employee submits the report, the SAFE-7 system will automatically generate a notice to the employee that the report has been received and a confirmation identification number that can be used by the employee to check the status of the report and any associated actions (Figure 29). The confirmation identification code travels with the report through closure. All entries associated with the investigation, mitigation, other corrective actions, and close-out are tracked using the identification code.

1. Your Information: <span>▼</span>			
Enter Your Information As: <span>Employee</span> <input checked="" type="radio"/> <span>Anonymous</span> <input type="radio"/>			
<b>Badge #</b> Badge No.	<b>Last Name</b> Last Name	<b>First Name</b> First Name	<b>Title</b> Title
<b>Mail Stop</b> Mail Stop	<b>Email Address</b> Email Address	<b>Phone</b> Phone	<b>Cell</b> Cell
<b>Cost Center</b> Cost Center	<b>Department</b> Department		

**Figure 26. Initial Entry Page SAFE-7 System**

2. Location of Hazard/Near Miss
▼

**Is Condition a Metro Property:** Metro Property  Non-Metro Property

**General Location of Hazard:**

**Specific Location of Hazard/Near Miss**

**City**

**Line**

**Direction**  
 North  
 South  
 East  
 West

**Street**

**Run**

**Stop Location**  
 Far Side  
 Mid Block  
 Near-Side

**Cross Street:**

**Vehicle No.**

Not Applicable

**Specific Location of Hazard/Near Miss**

**Figure 27. Location Reporting Screen**

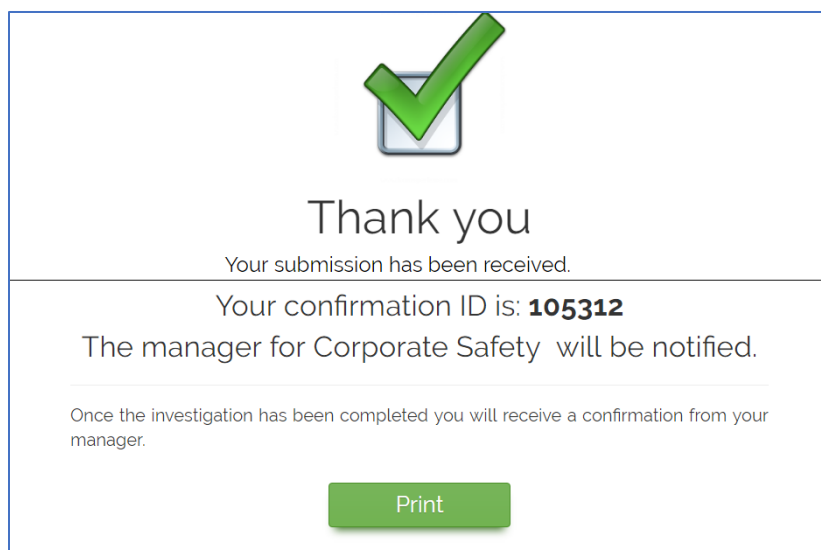
3. Categories
▼

**Category:** Hazard (Condition/Act Contributing To The Hazard)  Near Miss

**Hazard:**

Line/Route/Service Location		
<input type="radio"/> Bench Damaged	<input type="radio"/> Construction Zone	<input type="radio"/> Curb Paint Faded/Peeling
<input type="radio"/> Curb/Sidewalk Damaged	<input type="radio"/> Curb/Street Protusions	<input type="radio"/> Lighting
<input type="radio"/> Metal Plate	<input type="radio"/> Post/Sign Missing	<input type="radio"/> Pothole
<input type="radio"/> Road Construction	<input type="radio"/> Shelter Damaged	<input type="radio"/> Signs/Signals
<input type="radio"/> Storm Drain Clogged	<input type="radio"/> Street Rough/Uneven	<input type="radio"/> Tree Limb Protruding
Facilities Concerns		
<input type="radio"/> Confined Space	<input type="radio"/> Elevated Surface	<input type="radio"/> Equipment/Tools Defective
<input type="radio"/> Electrical Hazard	<input type="radio"/> Exit/Egress Blocked	<input type="radio"/> Fall Protection Hazard
<input type="radio"/> Fire Hazard	<input type="radio"/> Floor Damaged/Slippery	<input type="radio"/> Fluid Leak
<input type="radio"/> Forklift Unsafe to Use	<input type="radio"/> Haz-Mat Chemical/Substance Hazard	<input type="radio"/> Housekeeping Inadequate
<input type="radio"/> Ladder Unsafe	<input type="radio"/> Lighting Inadequate	<input type="radio"/> Machine Guarding
<input type="radio"/> Machinery Design/Setup Unsafe	<input type="radio"/> Noise	<input type="radio"/> Stairway Hazard
<input type="radio"/> Ventilation/Air Quality		
Unsafe Act		
<input type="radio"/> Disabling or Overriding Safety Devices/Equipment	<input type="radio"/> Distraction	<input type="radio"/> Employee Positioning Unsafe
<input type="radio"/> Lock Out/Tag Out Not Followed Where Required	<input type="radio"/> Equipment Not Used Safely/Correctly	<input type="radio"/> Horseplay/Roughhousing
<input type="radio"/> Safety Policy/Regulation/Procedure Violation	<input type="radio"/> Operating Equipment W/O Authority	<input type="radio"/> Personal Protective Equipment Not Used Where Required
<b>Other</b>		
<input type="text"/>		

**Figure 28. Hazard Reporting Categories**



**Figure 29. Report Confirmation**

Once an employee submits a SAFE-7 report, the employee's department head receives a notification via email with the compiled form. This department is ultimately responsible for the investigation and for informing the employee regarding the status of his report, if it has been submitted with the employee's contact information. In the case of anonymous reporting, the findings and corrective actions taken are posted on the safety bulletin board.

As soon as the report has been examined, the manager or supervisor in charge of the investigation enters their findings in the SAFE-7 system, along with supporting documents such as photos, reports, and short videos. The department head reviews the case and, in the event the results are satisfactory, the investigation is concluded and a notification is sent back to the employee who originated the report, if known. Otherwise, it is sent back to the departmental manager or supervisor, who is the person in charge of the investigation for additional information that maybe needed. The reports must be closed within 30 days (unless the mitigation is classified as a long-term resolution item) from its origination, and the results must be published or the originator notified of the report and related actions within this timeframe. If the reporting employee is not contacted and contact information was provided, they can contact the safety department for assistance.

While there is no pre-established team tasked with reviewing the SAFE-7 forms submitted, there is an executive-level team called Operations Safety Steering Committee that reviews the overall implementation of the SAFE-7 program at quarterly meetings.

#### *Post-Reporting Follow-Up Activities*

Follow-up activities occur in two ways. If the employee who reports an issue provides contact information, LA Metro will contact the employee and provide status information and its final resolution, including actions taken to mitigate or eliminate the issue. If the report has been submitted anonymously, the resolution is posted on the safety bulletin board accessible to all

employees. In both cases, the employee can enter the SAFE-7 system any time to learn about the status of the report. To ensure timely responses, any Safe-7 report that has not been resolved (or is not under investigations) within 7 days is highlighted yellow in the SAFE-7 system; a Safe-7 report that is not closed with a satisfactory resolution within 30 days is highlighted red in the SAFE-7 system.

### ***Training***

LA Metro provides employee training on how to complete the SAFE-7 form during the new-hire orientation. A PowerPoint presentation, "SAFE-7 Hazard/Near-Miss Reporting System Guidelines," addresses the following:

- Purpose
- Differences between a near-miss and a hazard
- Procedure
- Step-by-step guidance on entering a report
- Notice given to employees once SAFE-7 is submitted, which includes a confirmation identification number
- Procedure management for investigating supervisor/manager and division/cost center heads
- Tracking through the Management Dashboard
- File management
- Process close-out activities

LA Metro provides employee training on how to complete the SAFE-7 form during the new -hire orientation. Additionally, Metro prepared and currently disseminates training materials to all employees. The materials produced, which include a memo, program flyers, pocket cards, FAQs, and brochures describing the ESR system, serve as a form of refresher training and have been effective in preparing employees for the transition to the online form. LA Metro's SAFE-7 pamphlet is an explanatory tool that guides Metro employees through the online ESR system, as shown in Figure 30. Additionally, it contains a section of questions and answers to resolve the most typical doubts an employee may have regarding the completion of the form, as shown in Figure 31.

LA Metro provides additional training to supervisors who have investigative responsibilities that focuses on report analysis, how to address reported issues, and how to communicate the resolution of the issues addressed.

## How to Report Unsafe Conditions, Hazards or Near-Miss Incidents



### *The SAFE-7 Form*

**Metro is committed to providing a safe workplace free of recognized hazards for all employees, but we need your support and cooperation. All injuries, illnesses, hazardous conditions, unsafe work practices and near-misses must be reported in a timely manner to ensure worker safety.**

The importance of promptly reporting these incidents cannot be overstated, no matter how minor they may appear to be. These incidents happen every day in the workplace and should be reported regardless of the potential for personal injury and property damage. Here's why:

- > Prompt reporting allows us all to become proactive as opposed to being reactive in maintaining a safe workplace.
- > In many cases, an injury could have been prevented if the hazardous condition that caused that injury had been reported and corrected right away.
- > Minor injuries that are not reported can worsen over time and may be difficult to document if not reported in a timely manner.
- > Hazardous conditions that exist in the workplace that are not promptly identified can potentially result in serious injury.

**Metro has established a process for employees to identify and report unsafe conditions, hazards or near-miss incidents, without fear of reprisal, through the SAFE-7 Form.**

If you wish to remain anonymous, you are invited to submit a SAFE-7 without identifying yourself. Your submittal will appear on the SAFE-7 log, which tracks all SAFE-7 submittals and is posted monthly, allowing you and your co-workers the ability to monitor the progress of your submittal. We encourage all Metro employees, contractors and sub-contractors to actively support and participate in this program, and remember, if you see it, report it.

To access the SAFE-7 Form, please visit the Corporate Safety website on the Intranet and click on Forms.

**Figure 30. Reporting Guidelines provided in LA Metro's SAFE-7 Pamphlet**

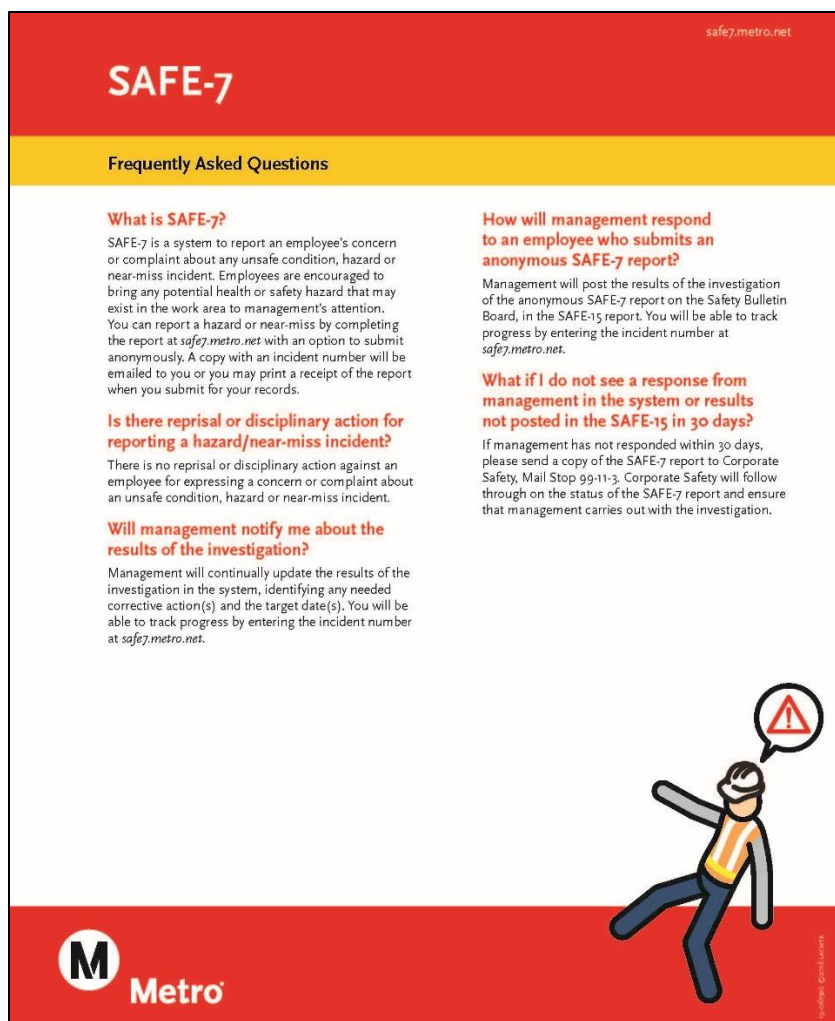


Figure 31. Frequently Asked Questions from LA Metro’s SAFE-7 Pamphlet

### Stakeholder Input

The five collective bargaining units (SMART, ATU, the Transportation Communications Union [TCU], the American Federation of State, County and Municipal Employees [AFSCME], and the Teamsters Union) at LA Metro were involved during the inception and implementation of the SAFE-7 system 25 years ago. In January 2019, with the migration of SAFE-7 to the online ESR system, unions were informed, but they did not actively participate in the development of the online ESR system.

LA Metro emphasizes its open-door policy as new employees enter the agency. This means that employees can submit their feedback at any time to management or supervisory personnel. In addition, recognizing the importance of employee feedback, LA Metro conducted two employee surveys to assist in evaluating the agency’s safety culture. In both, a consultant was used to interpret the survey responses related to safety culture and the SAFE-7 Program. Based on the results of these surveys, LA Metro determined that the current ESR system works well, and no changes were necessary.

California OSHA and the California Public Utilities Commission (CPUC) mandate the implementation of a non-punitive reporting system. Cal OSHA enforces California Labor Code §6401.7 and Title 8, California Code of Regulations, §3203, which requires the documented establishment and implementation of an Injury and Illness Prevention (IIP) Program. The IIP Program requires the inclusion of hazard assessment procedures that result in a comprehensive evaluation of hazards present in the workplace.<sup>128</sup> Cal OSHA and CPUC have not established any data protection law to regulate the non-punitive reporting system and the release of information submitted through the system.

While LA Metro has not established specific measures to track the effectiveness of the hazard and near-miss ESR system, the Safety Department evaluates the substantive quality of the issue reported and the implementation of corrective actions to mitigate unsafe conditions reported. LA Metro can track and trend the most prominent concerns now that they have fully transitioned to the online ESR system. However, as previously noted, the online ESR system has been in place only since January 2019; therefore, it is too early to perform a longitudinal analysis of its effectiveness. To constantly evaluate ways to improve their ESR system, LA Metro is also studying potential future ESR system design improvements that will be able to capture additional information.

### ***Barriers to Implementation***

LA Metro personnel who participated in the interview did not report barriers to ESR system implementation. The online version has been implemented completely in-house and is reported as well-received by employees.

### ***Elements of Success***

LA Metro's accident data collection system was the impetus for two very important and impactful agency-wide changes—the installation of a pilot program that involves the installation of gates that controls left-turn movements along new light rail corridors to reduce collisions with motor vehicles and pedestrian warning barriers implemented on the Blue Line. The left-turn gates along the light rail corridors close the left-turn lane for motor vehicles when the traffic light for the left-turn movement is red and the train is approaching. Due to the success of these gates, they are LA Metro's design standard for their Crenshaw Line scheduled to open in 2020.

LA Metro has invested \$34 million in pedestrian warning strategies at the grade crossings. This includes the use of small gates that close simultaneously with the vehicular gates described above. With these gates, the intersection is completely sealed when a train is approaching, as it crosses the intersection, and as it clears the intersection. This investment has led to a considerable reduction in pedestrian versus train events.

## LeeTran – Fort Myers, Florida



### ***ESR System Program Description***

Lee Tran implemented an ESR Policy in January 2019 as part of their SMS program established to comply with National Public Transportation Safety Plan and associated FTA safety regulations. Employees can report hazards encountered and near-misses through the reporting procedure. Reports can be submitted online, the preferred method found directly on the agency's webpage, and in hard copy using the reporting form that can be deposited in mailboxes provided exclusively for this purpose. Reporters may include contact information, or they may submit anonymously. Reports are processed in the same no matter whether they were reported online or through the hard copy form. Lee Tran's ESR system is included as a Safety Risk Management (SRM) element under the SMS umbrella. Accela Automation, a cloud-based platform for government software solutions, powers Lee Tran's online ESR system. Lee Tran's ESR system is managed by the Safety Department, established as the main hub for all safety concerns.

### ***Related Policies or Procedures***

Lee Tran is a department of Lee County and regulated by County policies and procedures. In addition, the agency is required to comply with relevant FTA and Florida DOT regulations. Lee County's Risk Management Department oversees the non-punitive ESR system. Lee Tran established a Policy and Procedure Committee that is responsible for rewriting all the guidelines that address safety reporting, follow-up procedures, data collection, punitive policies, and defining areas of immediate safety risks. However, the agency does not expect any major change in the ESR system that started in January 2019; changes will include a distinction between what is reportable through the ESR system and what is a negligent or illegal action, which would not be covered by the ESR system.

### ***Reporting Practices***

As noted, Lee Tran uses two methods to report hazards and near misses. Employees can submit their concerns using the hard copy form shown in Figure 32, which are placed in a labeled mailbox that is visited daily, or they may hand-deliver the form to a Safety Specialist. Once the form is received, the Safety Specialist processes and analyzes the request following SMS SRM principles and assigns to it a priority category based on the military standard MIL-STD-882E. Concerns are then forwarded to the appropriate department for resolution following the priority category assigned. Lee Tran's Operations Manager is notified once the report is entered into the ESR system and receives updates along the process. Following the "circle back" methodology, once the safety concern has been resolved, it returns to the Safety Specialist, who will communicate the result to the originator of the report, if known. If the originator is

unknown, the Safety Specialist will post the resolution to the safety boards in several locations in Lee Tran’s Operating Facility and in the agency’s safety bulletins.

**Employee Safety Reporting Form**

Tracking #  
Date Received:  
Acct Exec Initials and Date:

Please check applicable subjects:

Route    Schedule    Bus Stop    Shelter    Vehicle    Passenger

Client drop off/pick up location    Facility    Equipment    Other

(If applicable, please include route number, bus stop location, shelter location, vehicle number or client drop off/pick up address.)

Please explain your concern/issue/question:

Please tell us your recommended solution:

Safety Committee/Safety Specialist comments:

Planning/Maintenance/Marketing

See attached SRM worksheet

Employee Name (optional):  
\_\_\_\_\_

(If you provide your name and preferred method of contact, the committee will respond to you directly.)

**Thank you for your participation!**

**Figure 32. Lee Tran Employee Safety Reporting Form**

Reports submitted online are processed following the same procedure; the difference is only in the origination method. Employees who choose to use the webpage to communicate safety concerns must log into the employee portal and complete and submit the form. Once the report is submitted, a number is assigned to the report, and Lee Tran follows the same processed used for reports submitted on the hard copy form.

Contractors and sub-contractors at Lee Tran have their own ESR system and follow their own procedures, which currently are not monitored. However, Lee Tran is planning to implement a unified ESR system that will include contractor and sub-contractors so in the future they will have some control over external providers.

### *Post-Reporting Follow-Up Activities*

Lee Tran follows up on every report received. If the employee provided their name and contact information on the report form, the Safety Specialist will notify them of the steps taken to resolve the concern reported. This also provides an opportunity to obtain feedback from the employee if they are not satisfied with the efforts made to correct the hazard. If the employee completed and submitted the form anonymously, the resolution of the issue is posted on safety

boards placed in strategic locations within the facility and highlighted in monthly safety bulletins. In both cases, the resolution of the issue is presented by the Safety Specialist and discussed during quarterly safety meetings.

### ***Training***

Lee Tran has a comprehensive training program for their bus operators that includes Employee Safety Reporting as a key SMS principle. During these sessions, operators are instructed on the different options to report hazards and near misses using either the hard copy or online report form. The content of Lee Tran's ESR system training does not vary by the personnel attending the training; however, operators do receive some specific training due to the nature of their duties. The agency has not developed an explicit training for supervisors.

The agency is planning to implement yearly safety campaigns that will be held prior the onset of the hurricane season starting in 2020. During these campaigns, one topic will be the non-punitive ESR system and its utilization.

LeeTran also plans to allot extra time to train and work with operators to ensure they commit to safety, using the ESR system as a tool. Lee Tran, with the implementation of the non-punitive ESR system, have reformatted the way to report issues "from the driver's seat" perspective, as their marketing campaign states. The "From the Driver's Seat" near-miss employee safety reporting card is shown in Figure 33. This form is available to all operators to report issues that occurred throughout their shift. The campaign is focused on identifying hazards such as hanging branches or shelter conditions that plague operators on their daily routes.

<b>FROM THE DRIVER'S SEAT</b>	
Near Miss Employee Safety Reporting	
Please circle all that apply	
Did you refuse a ride to a customer? Y or N	
Did you have a near miss on closing door on customer? Y or N	
Did you have a near miss collision with another vehicle? : Y or N	
Did you have a near miss with a Stationary Object? Y or N	
Did you have an abrupt braking event? Y or N	
Did a customer cause a disturbance on your bus today? Y or N	
Did you have a fare dispute today? Y or N	
Did you have a route detour today? Y or N	
Write Below any incident not listed above	
DATE: _____	TIME: _____
OPTIONAL INFORMATION BELOW	
ROUTE: _____	BUS# _____
AM: _____	PM: _____

**Figure 33. “From the Driver’s Seat” Near-miss Employee Safety Reporting Form**

**Stakeholder Input**

Lee Tran surveyed their employees during the design stage of the ESR system to receive and consider their input. Lee Tran is non-unionized; therefore, the non-punitive ESR system was created internally, and only agency management were involved in the proposal, approval, design, and development of the program. To continue to foster a collaborative environment, Lee Tran plans to conduct periodic employee surveys to garner employee input on the ESR system, including suggested opportunities for improvements.

Following the mandates of Federal Public Transportation Law, including the adoption of the SMS framework codified in 49 U.S.C. § 5329, Lee Tran created a Safety Specialist position with the specific task of implementing and organizing a safety department, ensuring the adoption and maturation of SMS. The non-punitive ESR system is part of this effort. Lee Tran participated in an FTA Voluntary Bus Safety Review and SMS Gap Analysis to assist the agency with an overall understanding of the new regulatory requirements and the areas that must be addressed to ensure an effective SMS. This partnership and analysis allowed Lee Tran key staff members to become knowledgeable with SMS fundamentals. The first step in this process was an on-site visit for the FTA consultant team to become familiar with Lee Tran staff, roles, and

responsibilities and to conduct a gap analysis. The purpose of the gap analysis was to identify areas within the transit agency that needed to be improved or modified to allow a functional SMS to work at the agency. Lee Tran acknowledged the areas presented for improvement and began to develop their SMS, ESR system, and data acquisition and analysis process.

Lee Tran developed several drafts of the employee reporting policy and sent it to Lee County's General Counsel and Risk Department to ensure that the new policy was not at odds with existing policies. Lee Tran staff worked with the FTA consultant group after the initial visit to provide progress updates and work through technical questions related to the development of their SMS. Lee Tran reported that the findings from the gap analysis and overall partnership with the FTA consultant team proved to be an invaluable resource, as it provided a perspective from an independent expert. It was paramount to have this consultant team assist the agency, as it provided Lee Tran staff members with unbiased recommendations relating to employee reporting as well as other key SMS fundamentals. The agency subsequently developed a working SMS sized to fit their needs, while including all attributes from hazard analysis, to developing a process that will better predict unsafe events across all departments. The ESR system is a key and productive element of the agency's new approach to safety.

### ***Barriers to Implementation***

Lee Tran personnel assisting with the study did not identify encountered barriers during implementation of the ESR system. Management and employees have been supportive of its implementation, and the ESR system has been well-received.

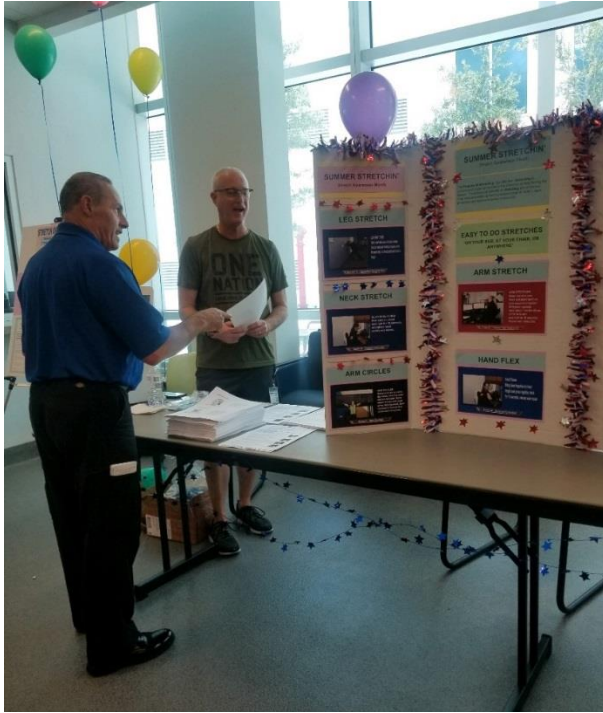
### ***Elements of Success***

The ESR system was launched in January 2019; therefore, Lee Tran does not have enough data to present documented ESR system successes. In addition, Lee Tran has not formally established performance measures to track the effectiveness of the ESR system. They will create a formal performance metric system to gather and analyze all the information collected from the ESR system once they have sufficient data. Currently, the volume of the reports received is still too small to define a successful trend on any specific hazards addressed. With recent changes in top management and with the goal of encouraging employees to use the newly established ESR system, Lee Tran is in the process of developing a campaign to re-introduce the near-miss reporting options and advantages. The campaign will include:

- A digital message board that plays videos of operators and staff demonstrating the ease of filling out a form
- A poster that details what types of events should be reported and why, which will be displayed in the operator break room
- A tri-fold poster that displays the near-miss form
- A time clock advisory placed above both time clocks in the operator break room

- An information table at events where a Safety Specialist explains the near-miss policy and hands out raffle tickets for a prize drawing that will take place at the end of the week-long campaign

A previous information table that was focused on the benefits of stretching is shown in Figure 34.



**Figure 34. Lee Tran’s Information Table**

Lee Tran’s Safety Specialist expressed excitement about the re-introduction of the near miss reporting opportunities at Lee Tran and the potential safety benefits that accompany this type of reporting.

## Central Florida Regional Transportation Authority, d.b.a. LYNX – Orlando, Florida



### ***ESR System Program Description***

The Central Florida Regional Transportation Authority (LYNX) is the main transportation hub for central Florida and serves Orange, Osceola, and Seminole counties with limited service to Polk County. LYNX developed and implemented a non-punitive ESR system called Nip-It-In-The-Bud in 2013. The ESR system is an electronic platform accessible only to operators, who can use the ESR system to report hazards, safety/security concerns, and route/customer issues, including damage to shelters, low-hanging branches, or unsafe bus stop locations.

As part of the new SMS, LYNX is planning to revamp their existing non-punitive ESR system, making it available to all employees rather than to bus operators only. Additionally, LYNX is projecting the inclusion of near miss reports into the ESR system. They also want to give more visibility to Nip-It-In-The-Bud, promoting its use across the organization through marketing.

### ***Related Policies or Procedures***

LYNX has not developed a policy that outlines the Nip-It-In-The-Bud program. However, in the effort to revamp the non-punitive ESR system, the agency is planning to develop a policy that will be distributed to all employees and will include a distinction between what is reportable through non-punitive reporting and what is considered negligent or illegal actions requiring discipline.

### ***Reporting Practices***

LYNX Nip-It-In-The-Bud program is entirely electronic and is open to all employees. Currently, employees can report hazards or safety/security issues encountered along the routes they operate. This ESR system is mainly used to report bus stops conditions, such as damaged shelters or unsafe bus stop locations. Operators must log in in their portal called INLYNX to complete the Nip-It-In-The-Bud form, shown in Figure 35. Once the report is submitted, the ESR system generates an email that is received by a Customer Relations Counselor and by an IT programmer, who then assigns it to the appropriate department.

LYNX employees can use the same Nip-It-In-The-Bud ESR Form to report unsafe acts of peer employees as well. Those reports are handled in the same manner as any other reported hazard or near-miss event.

Incident Information:	
Employee Name:	Bowden, Jafari
Responding Feedback Request #:	
Incident Date:	
Incident Time:	
Link #:	
Block:	
Bus:	
Direction:	
Problem Type (Please Check One):	
<input type="checkbox"/> Unhappy Customer	<input type="checkbox"/> Trip Consistently Not On Time
<input type="checkbox"/> Confrontation / Difficult Situation	<input type="checkbox"/> Consistent "Just Missed" Connection
<input type="checkbox"/> Security Problem	<input type="checkbox"/> Customer Needs Information
<input type="checkbox"/> Fare Dispute	<input type="checkbox"/> Transfer Policy Problem
<input type="checkbox"/> Pass Up	<input type="checkbox"/> Other Passengers
<input type="checkbox"/> Bus Stop Maintenance	<input type="checkbox"/> Paddle Board
<input type="checkbox"/> Schedule Issues	<input type="checkbox"/> Route Change (extension/deletion)
<input type="checkbox"/> Amenity Request (bench/shelter)	<input type="checkbox"/> Consistent Overload
<input type="checkbox"/> Fare Evasion	<input type="checkbox"/> Bus Stop Request
<input type="checkbox"/> TTN (Transit Television Network)	<input type="checkbox"/> Other: If the choices above do not address the problem, then please specify it in the Additional Comments.
Customer Information:	
Customer #1 Name: <input type="text"/>	Customer #2 Name: <input type="text"/>
Address: <input type="text"/>	Address: <input type="text"/>
City: <input type="text"/> State: <input type="text"/> Zip: <input type="text"/>	City: <input type="text"/> State: <input type="text"/> Zip: <input type="text"/>
Home #: <input type="text"/>	Home #: <input type="text"/>
Work #: <input type="text"/>	Work #: <input type="text"/>
Additional Comments: (In Detail, please write a brief description of your suggestion or a description of a concern that you have witnessed or have heard from a customer. Please don't forget to include: "Who, What, Why, Where, and When" in your summary as appropriate. Thanks for taking the time to make your comments.)	

**Figure 35. LYNX Nip-It-In-The-Bud Employee Safety Reporting Form**

### *Post-Reporting Follow-Up Activities*

The appropriate department investigates all the issues once the report is received from the Customer Relations Counselor. Reports containing safety issues are also forwarded to the Safety and Security Department, which will initiate its own investigation. The assigned department is responsible for investigating the reported issue and taking the necessary steps to eliminate or mitigate the hazard bringing it to an acceptable level. Once the reported hazard is resolved, the report is sent back to Customer Relations Counselor, who will close the case. There is currently no defined appeal process for LYNX employees who do not feel their reported hazard was adequately mitigated.

### **Training**

LYNX introduces the program to all new employees during their initial training. Currently, no refresher training related to the Nip-It-In-The-Bud Program is provided. Contractors use their own ESR system, which LYNX monitors. No training is offered. However, in the future, LYNX plans to include contractors in their non-punitive ESR system once it is developed. At that point, LYNX will provide contracted employees with the pertinent training.

### ***Stakeholder Input***

The IT Department developed the non-punitive ESR system platform currently in use under the guidance of the Safety and Operation departments. LYNX representatives indicated that ATU views the ESR system favorably and feel comfortable that the agency is concerned about operator issues, noting that many are valid issues—hazards at bus stops and route designs that require bus operators to cross many lanes of heavy traffic to reach bus stops, as examples. LYNX representatives noted that follow-up encourages participation. However, they did not provide input to current ESR system design and implementation.

While LYNX has not yet conducted a safety culture survey within their agency, as part of their implementation of SMS, operator input will be gathered through the TrackIt program, which allows the posting of pictures, operator reports, and other documentation of hazards or events. Supervisors can enter accident documentation through a mobile application. LYNX representatives indicated that this ESR system will allow them to track near-misses and other events from “cradle to grave.”

LYNX will be tracking preventable accidents, incidents, incidents by route, type of accidents, number of NTD reportable events, and operator assault, all of which are on a dashboard built into the program. The ESR system allows for tracking and reporting safety hazards to management and provides a supplemental method of increasing system safety at LYNX and protecting their employees, riders, and the public.

### ***Barriers to Implementation***

LYNX personnel assisting with the study did not identify encountered barriers during the development and implementation of the Nip-It-In-The-Bud program.

### ***Elements of Success***

LYNX personnel indicated that they do not have elements of success to share regarding the Nip-It-In-The-Bud program because they currently have no data available that highlight the effectiveness of the ESR system.

## Maryland Transit Administration – Baltimore, Maryland



### *ESR System Program Description*

The Maryland Transit Administration (MTA) instituted an ESR Hotline and email address about 10 years and 5 years ago, respectively. In 2018, MTA also made hard copy and postcard-like reporting forms available to their employees to submit safety concerns. The forms are located throughout various MTA facilities for ease of access and convenience.

The data from the ESR system is collected, managed, analyzed, and trended internally by the Office of Safety and the Safety Management Systems team. All data are collected anonymously, although employees may include their contact information if they so choose.

MTA has proactively implemented the ESR system to provide employees with an opportunity to share information about potentially hazardous environments or events that would otherwise remain unknown by the agency. MTA instituted this approach with the understanding that employee safety reporting will be required as they transition from a system safety program plan-driven approach to safety to the SMS approach, which will drive their new PTASP.

### *Related Policies or Procedures*

MTA has not officially established formal policies or procedures related to their ESR system and currently rely on promotional materials posted in their facilities. Additionally, along the same lines, MTA's discipline policies do not address safety reporting. However, MTA is in the process of formalizing and documenting the definitions and processes that will be used in the establishment of a formal ESR system Policy. MTA representatives are aware of and reviewed the processes used in the C<sup>3</sup>RS programs that are currently in use at several Class 1 and commuter railroads and with WMATA's program, which includes a BTS partnership.

### *Reporting Practices*

When an employee submits a report through the ESR system, it is logged with all relevant information, the reported hazard is assessed against the risk matrix (a calculation between the hazard's initial severity and probability), and it is assigned an initial level of risk. Employees can report unsafe acts of peer employees in the same manner as they would report any other observed hazard. Once logged and categorized, the hazard report is submitted to respective departments or modes, where it is added to the departmental hazard log for tracking, classification, mitigation, and closure. Relevant key personnel throughout the agency, including the Executive Safety Committee and the Risk Review Committee, with membership that includes a representative from MTA administration, the Chief Safety Officer, and the department heads from Planning, Operations, and the General Counsel's office, have access to

submitted reports. Agency leaders are notified of safety reports that have been received through a summary of hazard and incident reports provided at monthly modal department meetings. On a quarterly basis, the Risk Review Committee reviews reported Category 1 and Category 2 hazards, and each respective modal department reviews all reported hazards on a monthly basis.

ESR system Hotline personnel follow a decision tree to determine the category of the hazard that is reported and enter it into the log. Upon receiving a call, Hotline personnel are first directed to ask if the call is related to an emergency, as emergency calls should be directed to the Operations Control Center (OCC) or MTA police. Once it is determined that the call is not related to an immediate emergency, consideration is given to whether the hazard could immediately result in an injury to an individual, includes property damage, or is already under consideration by an active work order. From there, a determination of the type of hazard is made, classifying the report as a close call, an event, or hazard. Hotline personnel then prompt the reporter with additional questions to determine if the report is an employee versus management issue, the mode associated with the report, and if the caller wishes to remain anonymous. Based on the specifics of the report, Hotline personnel then determine the category of the report and enter the information into a log.

#### *Post-Reporting Follow-Up Activities*

Once a report has been logged, information gathered for that report is provided to each modal department affiliated with the report. Each MTA modal department is tasked with mitigating all hazards possible within their department. Agency-wide hazards or issues are brought to the Risk Review Committee for mitigation implementation. Follow-up confirmation communication occurs with the reporting employee within 24 hours if contact information is provided. However, if the report is provided anonymously, the resultant mitigation measures implemented as a result of a report are shared at monthly modal department meetings.

If an employee does not feel the hazard they reported was adequately resolved, the employee may notify the safety officer of their concern during the required debrief that occurs if the hazard is not reported anonymously. If the employee reported the hazard anonymously and is not satisfied with the corrective action, they may file another report.

#### ***Training***

MTA finalized their new ESR system directive in August 2019, which is explained in detail in MTA's Introduction to SMS and Hazard Reporting training. New employee orientation includes the ESR system in the associated new-hire training. Additionally, the agency has produced a litany of promotional media that they are displayed throughout all modal facilities that informs employees about the various methods available to report hazards through the ESR system . Figure 36 and Figure 37 are examples of the materials MTA has posted to promote the use of the program. Contractor employees, such as those who provide paratransit services, do not currently receive training or a briefing on the program, but MTA representatives envision that

contractors will qualify to report through the ESR system when the agency implements its official policies.



**Safety Management System (SMS)**  
**Commitment to Safety**

The Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) is committed to a positive safety culture and creating a workplace that is safe, healthy, and injury free. Our employees are our most valuable assets, and your safety is our top priority. This applies to all personnel and every aspect of the organization's activities. This commitment as well as relevant safety information, activities and performance shall be communicated consistently throughout the organization.

MDOT MTA is implementing a Safety Management System (SMS) to prevent accidents, reduce risk of injury, and minimize damage to property, equipment, or the environment. We will work proactively towards identifying and reducing the existence of hazards and risks in the workplace and throughout our system by using the appropriate safety risk management tools and processes. As the Accountable Executive for all operations and activities, I will ensure that resources are available to support a robust and successful SMS. The SMS program is managed under my authority by the Chief Safety Officer who reports directly to me.

All MDOT MTA employees, vendors, and contractors are accountable for safety performance. Management will provide top-level support for safety program initiatives. We will consider all employee suggestions for achieving a safer, healthier workplace, and regularly monitor our safety and health programs against data driven performance measures.

Supervisors are responsible for supervising and training workers in safe work practices. I expect our supervisors to enforce MDOT MTA's safety rules and work cooperatively with employees to eliminate or control hazardous conditions.

All employees, vendors, and contractors are encouraged to participate in safety and health program activities, including reporting hazards immediately to Supervisors or a Safety Representative, wearing required Personal Protective Equipment (PPE), and participating in safety committee activities. MDOT MTA's reporting programs include the Safety Hotline at 844-MTA-SAFE (682-7233) and email at [reportallhazards@mdot.maryland.gov](mailto:reportallhazards@mdot.maryland.gov).

Disciplinary or retaliatory action shall not be taken against any employee who acts to prevent an injury, accident, incident, or hazard from occurring; or who reports safety concerns such as non-compliance or violations of safety rules, hazardous conditions, environmental concerns, or incidents and accidents involving MDOT MTA personnel, equipment, and property. Employee behaviors such as illegal activity, negligence, acts of willful misconduct, or undue care are unacceptable at the MDOT MTA and may be subject to disciplinary action.

Thank you for your continued commitment to a safe and positive work environment.

*Kevin Quinn*  
Kevin B. Quinn Jr.  
MDOT MTA Administrator

**MDOT** MARYLAND DEPARTMENT OF TRANSPORTATION  
MARYLAND TRANSIT ADMINISTRATION

Figure 36. MTA Commitment to Safety with ESR System References



**Figure 37. MTA Hazard Reporting Program Poster**

To proactively identify and address potential hazards, MTA provides employees with an SMS card (Figure 38) that outlines the frontline employee’s role to work safely and wear proper personal protection equipment, remain compliant with procedures and regulations, and report hazards, safety concerns, or safety suggestions. The card also identifies what employees can report, including hazards and potential hazards, issues and mistakes, safety concerns, accidents and incidents, and possible solutions and safety improvements. The ESR system Hotline number is displayed prominently on the card, and the back of the card lists the ways in which an employee can submit a safety report, including notifying a lead supervisor or local safety representative, formally submitting a confidential report into the SMS, calling the safety hotline, or sending an email. The card also establishes that employees are accountable for:

- Their own safety and the safety of those around them
- Following agency procedures
- Wearing proper protective equipment
- Reporting any unsafe conditions promptly
- Reporting injuries and damages

- Striving to be safe at work and at home

Finally, the card highlights unacceptable workplace behaviors, such as willful safety violations, reckless and neglectful acts, at-risk behavior, criminal activities, and alcohol or drug use.



Figure 38. MDOT SMS Card

### ***Stakeholder Input***

The ESR system is underpinned and largely driven by the various reporting methods at MTA and is not explicitly defined or detailed in policies or procedures at this time. As such, there was limited labor partner involvement in the development and implementation of the ESR Program. To date, MTA has not solicited employee feedback regarding the acceptance or effectiveness of the program; however, a forthcoming agency-wide safety culture employee survey will contain several questions to garner advice on suggested improvements of the program.

### ***Barriers to Implementation***

Improving the safety culture of an organization is the biggest barrier to the implementation of an ESR system. Currently MTA receives about 10 ESR system reports per month, the majority of which do not involve near-miss events, but rather identify some other type of hazard.

### ***Elements of Success***

MTA currently tracks several performance measures to gauge the efficacy of their program, including number of open and closed reports, hazard classification of each report, average days

to closure, reports per month, reports by mode, and reports by area, such as facilities, equipment, systems, security, etc.

In addition, MTA recently formalized their program into a directive approved by the Accountable Executive (the MTA Administrator), and has rebranded and expanded promotional materials throughout the agency to promote reporting of hazards. Hazard reporting is also a main element of the Introduction to SMS and Hazard Reporting training module. MTA also has streamlined the process for when hazards are reported through the Safety Hotline. Instead of a hazard reporter getting a voicemail after business hours that would prompt them to call another number, there is now one easy-to-remember number (844-MTA-SAFE), and a safety officer is available to answer the phone at all times.

## Massachusetts Bay Transportation Authority – Boston, Massachusetts



### ***ESR System Program Description***

MBTA currently has three methods by which employees can report hazards and near-miss events in a non-punitive manner—a hand written MBTA Form B, Notification to MBTA Safety (Figure 39), the Safety Hotline at (617) 222-5135 (Figure 40), and through email at [safetynotification@mbta.com](mailto:safetynotification@mbta.com). MBTA established each of these hazard and near-miss event reporting methods at different times. The MBTA Form B reporting method is the oldest hazard and near-miss reporting method in place at MBTA, which was instituted in the early 2000s, and is seldom used. The Safety Hotline was introduced at MBTA in 2010 as a new way to report hazards and near-miss events. Initially, there were many reports submitted through the hotline, but reporting volumes have decreased to 2–5 calls per month, on average. The newest and most-used reporting method at MBTA is the safety notification email, which was instituted in 2014 and is consistently used for reporting accidents and injuries and occasionally to report hazards and near-miss events. MBTA representatives indicated that safety notification email volumes increased in the first half of 2019.

There are additional reporting methods that are available to the riding public that could potentially be used by MBTA employees. ELERTS produced the MBTA See Say mobile phone app that allows anyone to make an anonymous report at any time. MBTA has also received reports of various hazards through unconventional reporting methods such as the customer service hotline and the Text A Tip line that is managed by the MBTA Police Department.

MBTA has entered into a C<sup>3</sup>RS Implementing MOU with primary stakeholders, FRA, Keolis, and four labor unions (SMART-UTU, BLET, ATDA, and TCU) for their commuter rail services. This IMOU is in place only for employees of Keolis, the company through which MBTA contracts all commuter rail services.

### ***Related Policies or Procedures***

MBTA operational rulebooks describe the procedures for reporting. While MBTA has not yet established a standalone reporting policy, related policies were under development as of August 2019. The standalone policy will include a distinction between a reportable event or hazard and acts that are considered negligent or willful violation of MBTA rules. While all reported near-miss events would be non-punitive, the policy currently under development will clearly define what prohibited acts will result in disciplinary actions.

The C<sup>3</sup>RS/IMOU in place for commuter rail personnel outlines the specific reporting procedures, including the criteria for close call report acceptance, and all confidentiality details. It details that when an employee of Keolis observes a safety problem or experiences a close call event,

they should report the problem or event in detail to NASA using the online form. NASA subsequently de-identifies the information and provides the details to the Peer Review Team (PRT) for analysis and development of implementations for consideration. The PRT includes individuals from each of the primary stakeholders mentioned previously.

<b>FORM B</b>		
<b>NOTIFICATION TO MBTA SAFETY</b>		
<b>(Employee to Complete)</b>		
<b>Date Report Filed:</b> _____	<b>Location:</b> _____	
<b>Describe Hazardous Condition:</b> _____		
_____		
_____		
_____		
_____		
_____		
<b>How Identified:</b> _____		
_____		
<b>Please note all positions notified:</b> _____		
_____		
<b>Line Dispatcher:</b>	<b>Line:</b> _____	<b>Date:</b> _____
<b>Maintenance Control Center Dispatcher:</b> _____	<b>Date:</b> _____	<b>Job#</b> _____
<b>Supervisor:</b> _____	<b>Date:</b> _____	
<b>Name and Badge# of Employee Reporting Hazardous Condition (optional):</b>		
_____		
<b>NOTE:</b>	An employee may report an unsafe condition to MBTA Safety anonymously. However, it is important to complete this form and ensure all pertinent information is provided.	
A copy of this notification should be forwarded to MBTA Safety:		
185 Kneeland Street Third Floor Boston, MA 02111 Fax#: 617-222-5127 or #617-222-6013		
<b>Assigned MBTA Safety Official:</b> _____		<b>Date:</b> _____

Figure 39. MBTA Form B – Notification to MBTA Safety

# SAFETY HOTLINE

To notify MBTA Safety of a workplace safety, Right Of Way (ROW) safety, or other safety concern, please call or e-mail:

## 617-222-5135

## safetynotification@mbta.com

Please leave a message detailing the following information:

- ✓ SAFETY CONCERN OR HAZARD
- ✓ LOCATION OF THE CONCERN OR HAZARD
- ✓ CONTACT INFORMATION (optional)



If you leave your contact information, an MBTA Safety representative will contact you directly. You can also choose to report the issue anonymously without fear of retribution from a supervisor or co-worker.

MBTA does not tolerate the suppression of any employee's safety concerns or any form of retaliation against persons who report unsafe conditions. Impeding or intimidating an employee can result in disciplinary actions, up to and including discharge.

When a safety concern arises or a hazard is discovered that can cause self harm, affects the safety of our internal or external customers, requires immediate attention, medical assistance, or a response from Transit Police/local Fire Department, immediately contact the OCC Dispatcher. When a defect or a part of the infrastructure is in need of repair, please call the Maintenance Control Center (MCC) and obtain a job work order number.

Other Important Numbers:

- MBTA Safety Office — 617-222-6604
- Red Line Dispatcher — 617-222-5707
- Green Line Dispatcher — 617-222-5842
- Orange Line Dispatcher — 617-222-5744
- Blue Line Dispatcher — 617-222-5774
- Silver Line Dispatcher — 617-222-5779
- North Side Bus Dispatcher — 617-222-6777
- South Side Bus Dispatcher — 617-222-5777
- MCC — 617-222-5278

**Figure 40. MBTA Safety Hotline Poster**

*Reporting Practices*

The hard copy MBTA Form B can be found throughout various locations at MBTA, and once filled out can be placed in an envelope and sent to the MBTA Safety Department via interoffice mail. Alternatively, the form can be sent via fax, or scanned and emailed. As noted, MBTA's Form B is not heavily used by employees.

The Safety Hotline is a voicemail box that is checked by MBTA Safety Department staff regularly. The Safety Hotline does not currently provide for instant response, since it is a voicemail box that needs to be retrieved. Due to this, its use tends to be minimal, as other methods allow for quicker response and resolution.

The safety notification email is an email address that simultaneously sends the same information to all managers and several office personnel. While this email comes directly from the employee's agency-provided email address, employees can request to remain anonymous and their personal information will not be included in any reports. If an employee uses the ESR system to report unsafe behaviors of another employee, the Safety Department will investigate the reported concern, maintain confidentiality, and, if necessary, contact the employee involved in the reported concern to offer an opportunity to submit a report of their own.

Once a hazard or near-miss report has been received, MBTA's Safety Department determines the level of involvement or plan of action that will be required from other departments and initiates communication with those identified departments. The MBTA Safety Department holds all responsibility for review and follow-up communication.

### *Post-Reporting Follow-Up Activities*

Once a hazard report has been received and the Safety Department has reviewed the report, they send an email to the reporter indicating that the report has been received. If the report was submitted anonymously, this notification of receipt email is bypassed. Simultaneously, the MBTA Safety Department assigns an appropriate staff member to investigate the reported hazard. Staff assigned to each hazard report typically are the personnel most familiar with the area of concern.

After a hazard is reported and staff are assigned, the hazard is confirmed through an investigation, which involves the collection and logging of supplemental photos and documentation that will detail what the hazardous environment entails. The safety concern is logged, mitigation measure recommendations are developed, and follow-up ensues until hazard mitigation is complete. The duration of the investigation process varies depending on the nature of the reported hazard.

If employees do not feel the safety hazard was adequately mitigated, they can use the ESR system again for further clarity on the risk control implemented and if it is effective. Additionally, if an employee does not feel that a safety issue has been addressed and considers themselves in harm's way, they may issue a Good Faith Safety Challenge.

### ***Training***

MBTA employees are trained to report hazards and near-miss events in new hire, OSHA, and right-of-way training. Additionally, MBTA emphasizes hazard reporting via written Safety Flashes and management blitzes. MBTA's new-hire orientation course, "Safety Awareness at the MBTA," defines system safety, provides the "Take 5 for Safety," and discusses the MBTA policies and procedures that support work place safety. Module A, "What is System Safety?" presents how to identify hazards, determine the levels of risk and develop an action plan. Module B, "Take 5 for Safety!" includes:

- Be Aware: Identify and Eliminate Hazards

- Plan Ahead
- Stay Alert – Don't Get Hurt
- Speak up: Report Hazards and Near-Misses, All Injuries, and Communicate Concerns with Fellow Workers
- Use Proper Personal Protective Equipment (PPE)

Module C, "Work Place Safety," presents MBTA's safety goals and asks employees what they can do to help the agency attain its goals. Areas of workplace safety discussed during new-hire training include housekeeping; electrical safety; walking, walkways, and stairs; and specialized training that may be required depending on the employee's job duties and responsibilities. The curriculum includes a segment on an employee's responsibility to report all hazards to their supervisor, both unsafe conditions and acts; all accidents, injuries, and near-misses to the supervisor or management; and to obey all warning and caution signs and establishes that "horseplay" is forbidden. This transitions into the reporting methods, as referenced above.

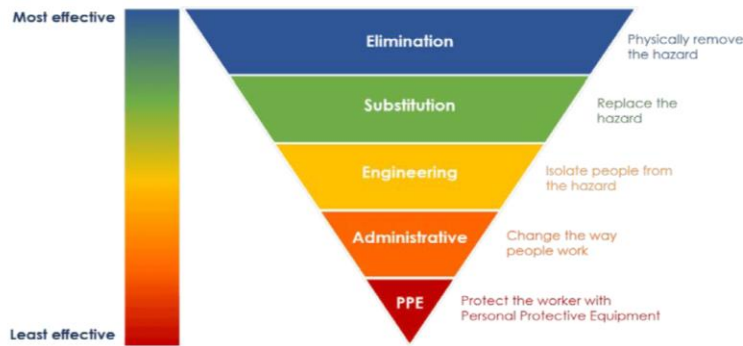
All employees receive the same general training on the methods by which they can reports hazards and near-miss events. There are limited curriculum that has been structured specifically for certain positions, which includes topics such as lock out/tag out for right-of way employees, fall protection, machine/equipment operation, PPE, and electrical safety. Currently, MBTA does not provide hazard reporting training to contracted personnel such as paratransit operators. Contracted employees have the option of reporting hazards through MBTA's Safety Hotline. Additionally, as SMS is implemented at MBTA, all future contracts will have language requiring contracted employers to have an SMS, including an ESR system.

The *Safe Travels* newsletter is produced by MBTA's Safety Department to help keep internal customers and industry partners better informed about issues that affect personal and professional safety. It includes an "Employee Question of the Month" (Figure 41), provides notification of career opportunities at MBTA, recognizes employees for making MBTA's system safer, and highlights the teamwork and respect between MBTA and its collective bargaining units.

**Building on MBTA's Strong Safety Culture**

**Employee Question of the Month – How does the MBTA address workplace hazards?**

The Hierarchy of Hazard Control Pyramid (*see pic below*) is a system used in industry to minimize or eliminate exposure to hazards. It is a widely accepted system promoted by numerous safety organizations. This industry concept is taught to managers and is promoted as the standard practice in our workplace. When elimination, substitution, engineering controls and/or administrative measures are not feasible, or do not provide sufficient protection from a hazard, an employee must be provided with and instructed on proper use of appropriate PPE to help ensure his/her own health and safety. At no time does PPE fully protect an employee from the dangers and elements of human error and mechanical failure, it is the last line of defense. Please take the time to use PPE in needed situations and understand the importance of reducing your direct exposure to workplace hazards.



**Figure 41. MBTA's *Safe Travels* Newsletter and Example Employee Question of the Month**

***Stakeholder Input***

MBTA did not initially include any of their approximately 28 labor unions in the development and implementation of their hazard and near-miss reporting method alternatives. However, as they develop their PTASP and updates their non-punitive reporting alternatives to be governed by policy and standard operating procedures, they plan to include labor representatives in future policy development.

***Barriers to Implementation***

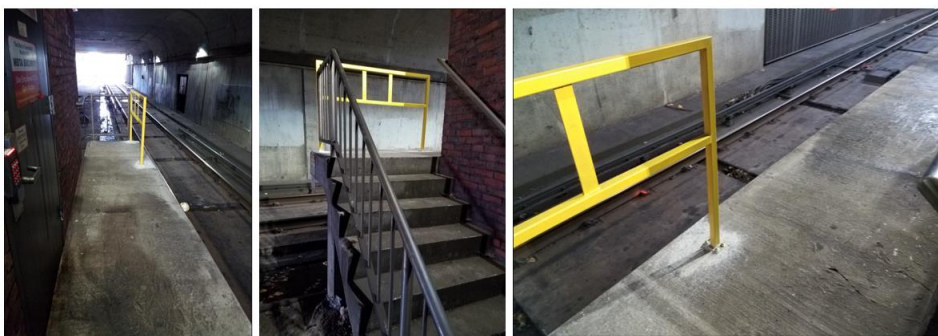
MBTA management historically relied on disciplinary actions, which strained the relationship between management and represented employees. This continues to influence MBTA's safety culture; thus, implementing a non-punitive reporting program has been challenging. Additionally, gathering the volume of reports necessary to perform trend analyses has been challenging.

***Elements of Success***

MBTA representatives indicated their understanding of the significant importance of establishing and encouraging a mature safety culture, which will support a well-developed and fully utilized ESR system. They also connect mature safety culture to the ability to gain a better

understanding of the overall risk of operations from frontline workers and subsequently focus limited resources to areas that present the greatest risk to the agency. MBTA representatives stressed that when all hazards are reported, trends and analyses can be performed to gain a better understanding of the overall risk of operations and can subsequently focus limited resources to areas that present the greatest risk to the agency.

MBTA's Safety Office received a Safety Hotline notification regarding an unsafe platform observed at Green Street Station by an employee—a set of stairs leading to the right-of-way without any return. The MBTA Safety Office investigated the location and evaluated other stations to determine if a similar layout was being used that could create hazards. The hazard was identified only at MBTA's Green Street Station, and a work order was placed for the installation of the railing (Figure 42).



**Figure 42. Safety Hotline Hazard Identification and Mitigation Implementation**

Another example of a successfully-reported hazard was related to a tripping hazard. Once the safety concern was reported and the hazard was confirmed, a mitigation was instituted to keep the tripping hazard off the ground. Another hazard reported was related to nighttime track worker concerns about animals on the track and limited lighting. Once the concern was reported through the hazard reporting program, MBTA Safety Department representatives evaluated the nighttime environment, looking for animals and considering the lighting configuration. While the reported animals were not substantiated, the reported lighting concerns were confirmed, and the lighting configuration was improved with additional trackside headlamps to allow better views for the nighttime track workers. MBTA also purchased upgraded flashlights for their track workers that provided better illumination

Another successful mitigation measure that was implemented in response to a hazard report was a safety concern an operator expressed related to the way a specific bus was handling in inclement weather. The operator explained that the back end of the bus was pulling to one side, which was confirmed through follow-up investigation. The bus was sent for testing, and it was determined that the bus manufacturer had unintentionally forgotten to activate some installed software. The software was activated, and the issue was resolved.

Through the internal promotion of the successes of the hazard ESR system, MBTA representatives are hopeful that their hazard and near-miss ESR system will benefit the organization while also promoting the future use of the ESR system.

## Metropolitan Area Regional Transit Authority – Atlanta, Georgia



### ***ESR System Program Description***

MARTA's Safety 1<sup>st</sup> SRS has been in place for approximately six years. Employees, contractors, and riders may submit safety concerns using one of three reporting options—through the Safety Hotline, by submitting a hard copy report, or by submitting the report online, which MARTA added as an option three years ago. Employees may submit concerns anonymously. MARTA assures that reprisal will not be taken against any employee who submits a Safety 1<sup>st</sup> report. If an employee observes a condition in which danger is imminent, they are instructed to notify a supervisor or manager immediately. An employee who discovers an unsafe condition that does not pose immediate danger is expected to eliminate the situation if it is safe for them to do so within their authorization to act.

MARTA's security and maintenance departments each have their own reporting mechanism that maintains logs and corrective actions of reported hazards and concerns.

### ***Related Policies and Procedures***

MARTA's Safety Hazard Notification and Escalation Process establishes the steps that must be taken to gather, investigate, and correct the reported hazard. It also delineates an appeals process in the event the reporter is dissatisfied with action taken or the response. MARTA's Safety Hotline Procedure (SQA-SOP-1020) provides the scope and purpose of the hotline, the definitions used, various responsibilities of MARTA personnel involved in the process, along with the details of the Safety Hotline notification and investigation process.

### ***Reporting Practices***

MARTA employees or contractors may enter their safety concern into the Safety 1<sup>st</sup> online database or provide a hard copy to their supervisor (Figure 43). Supervisors in receipt of Safety 1<sup>st</sup> reports must enter the report into the online database before the end of their shift. MARTA will make alternative arrangements for "discreet delivery" of Safety 1<sup>st</sup> if necessary, such as notifying the System Safety Officer or an ATU Local 732 representative. Once entered, the Safety 1<sup>st</sup> ESR system automatically distributes the report to the employee's supervisor, unit director, ATU officers, Joint Health and Safety Committee (JHSC) members, and Department of Safety and Quality Assurance (DSQA) personnel.

Any Safety 1<sup>st</sup> report that requires resources from other departments is referred within 24 hours to the appropriate department manager for processing and response.

Employees and contractors may also submit reports through the Safety Hotline, which provides for anonymous safety concern reporting. MARTA's Office of Safety monitors the hotline and

ensures that the reporting standard is followed. The Hotline Program Task Leader operates the Safety Hotline and is responsible for checking hotline messages daily, vetting/validating notifications, assigning a ticket ID number for notifications, notifying the assigned Lead Investigator, updating the status of each notification, and preparing weekly status reports of all open and closed tickets. The Lead Investigator is responsible for verifying and investigating reported incidents or safety risks and for developing corrective action plans and forwarding findings to the Hotline Program Task Leader. Lead Investigators are assigned on a rolling basis, with each rotation beginning on Monday and ending on Sunday.



promptly investigate the reported hazard and take appropriate actions (presented in MARTA's priority order):

- Assess the seriousness of the situation (life threatening, could cause injury, could cause a mishap, non-hazardous).
- Remove persons at risk of death or injury.
- Eliminate the hazard, if possible, if within their level of authority, and if safe to do so.
- Isolate, guard, or place warnings (lock-out/tag out).
- Notify the affected employees and management chain of the Safety 1<sup>st</sup> report and actions taken for resolution.
- If, upon investigation, it is determined that a hazard does not exist, this is communicated to the reporter.
- If the employee is not satisfied with the response, the employee has three calendar days to request initiation of the appeal process.

Once the investigation process has concluded, the reporting database is updated to reflect the report status as "Denied," "Closed," or "Pending-Approval."

If after taking corrective actions the hazard has not been resolved five days following entry, the Safety 1<sup>st</sup> report will automatically escalate to the unit director with copies provided to the ATU officer, the JHSC, and the Assistant General Manager (AGM) of Safety and Quality Assurance. The director has five days to address the submitted Safety 1<sup>st</sup> report by an action plan and/or a specific timeline for resolving the issue. The director will notify the Director of Safety, Department General Manager (DGM), Office of Safety, JHSC co-chairs, and all full-time ATU officers of the plan and corrective action status.

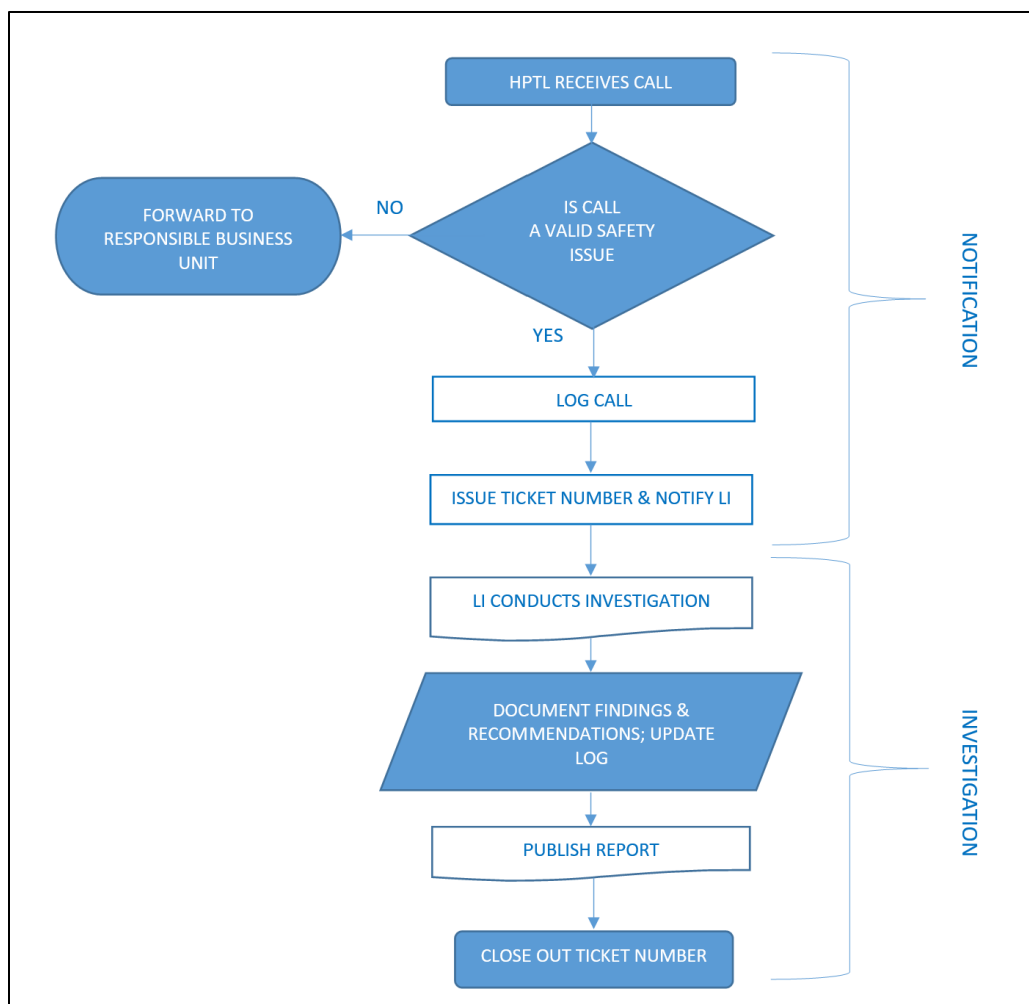
If the director cannot resolve the Safety 1<sup>st</sup> report within five days and it remains in "open or In-progress" status, it will automatically be escalated to the JHSC. Within five calendar days of notification to the JHSC, the co-chairs of the JHSC will assign, if needed, members of the committee (including one ATU representative) to evaluate the plan and submit a corrective action status to the JHSC co-chairs. If JHSC determines that the proposed corrective action and schedule for implementation are inadequate, the report will be referred to the AGM/DGM and ATU Officers for review. All items referred to the AGM/DGM and ATU Officers are reported at the General Manager/Chief Executive Officer Safety Committee Meeting to review the hazard, corrective action proposed, schedule and status.

Final hazard resolution results are provided to the employee reporter, ATU Officers, and JHSC as part of the monthly meetings and are recorded in the minutes of the meeting. Once a reported hazard or concern has been addressed, MARTA has an electronic Safety 1<sup>st</sup> Closure Form that includes the following information with corresponding drop-down selection options:

- Report identification number
- Title of the reported hazard or concern
- Employee name (if provided)

- Job title
- Department
- Vehicle, equipment or location of the hazard
- Brief description
- Employee recommended changes
- Description of the unsafe condition or hazardous work practice
- Supervisor recommended change/action
- Supervisor's name
- Date the report was created
- Resolution status

The Hotline Program Task Leader assigns concerns submitted through the Safety Hotline to the Lead Investigator, who verifies and investigates the reported incident or safety risk. They are also responsible for developing corrective action plans and forwarding findings to the Hotline Program Task Leader to ensure the hotline log is up to date. Summary reports of all hotline submittals, the status of the report, and the summary of the action(s) taken are included in weekly status reports and presented in a bi-weekly report submitted to MARTA's Assistant General Manager. MARTA's Safety Hotline process is shown in Figure 44.



**Figure 44. MARTA’s DRAFT Safety Hotline Notification and Investigation Process, August 2019**

During the telephone interview with MARTA personnel, they shared that they are reviewing the current process, which will likely result in a reduction of the number of report investigation and resolution steps and the number of days to process, from 30 days to 14 days.

***Cost of Implementation***

Implementation and management-related costs of the ESR system are difficult to value. The program depends almost exclusively on agency man-hours.

***Training***

During the initial implementation of the program, MARTA provided training to management staff and then provided a “rolling show” for all employees. It is now a part of new-hire training, and MARTA developed an E-Learning presentation on the program that is available to all employees.

### ***Stakeholder Input***

MARTA's JHSC, which includes an ATU representative, was involved in the development of the program and is responsible for any review or updates to the process. In addition, this body is actively involved in the progression and resolution of Safety 1<sup>st</sup> reports. MARTA also conducted an in-person "soft survey" with the ATU management and union stewards before the rollout of the program to gain input on how to report and how members could use the ESR system. At that time, ATU viewed the ESR system favorably. However, ATU members established that when reports are submitted, they want to see action taken.

### ***Barriers to Implementation***

MARTA representatives did not identify barriers to implementation. However, they recognize that periodic program and process evaluation is necessary. At the time of the interview, they were updating associated program policies and procedures

### ***Elements of Success***

An example of success relates to multiple reports of "significant potholes." MARTA conducted a site visit of the location and determined that it was likely that the potholes were causing damage to bus suspensions, wheels, and structural elements. The issue was assigned to MARTA's Maintenance Department, which made the repair within four days of receiving the assignment. This was described as a pro-active step that helped them mitigate damages to their transit buses.

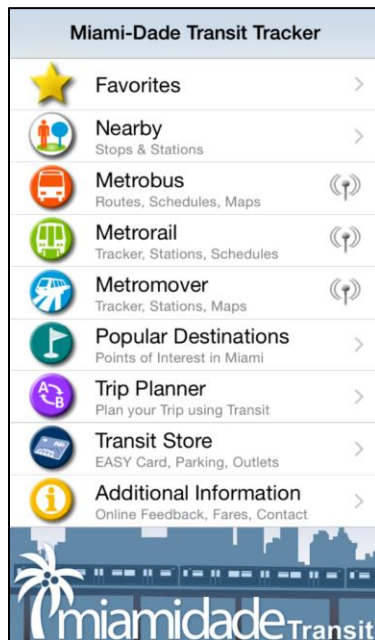
In another example, due to the layout of an apartment complex parking area, buses were required to perform backing maneuvers, which presented collision risk for bus operators. MARTA personnel visited the location and developed a mitigation strategy that allowed bus operators to maneuver on the property with less risk.

## Miami-Dade Transit – Miami, Florida



### ***ESR System Program Description***

Miami-Dade Transit (MDT) employees can report safety concerns through a number of avenues, including an online application at <https://www.miamidade.gov/transit/safety-concern.asp> or on the agency-created proprietary smartphone app, the “MDT Tracker” (Figure 45), both instituted over five years ago. Employees may also submit a Report of Safety Concern using a hard copy form (Figure 46), which MDT has used for over 15 years. Reporters submitting safety concerns either by the online form or through the mobile app can remain anonymous. MDT representatives stated that frontline employees are more likely to report concerns directly to their supervisors rather than reporting via the hard copy, online, or app options. They indicated that many of these reported concerns are resolved without being elevated to the Office of Safety and Security.



**Figure 45. MDT Tracker App**

The TWU is the collective bargaining unit at MDT. TWU shop steward or officers can bring forward concerns reported by frontline employees to the Union-Management Safety Committee (UMSC) meetings, which are logged into the SRS.

MDT has a group that monitors social media posts and reports any posted safety or security-related items to the Office of Safety and Security. For security-related concerns, MDT uses the

location-aware Transit Watch app. Any report of suspicious or dangerous activity on MDT buses or trains submitted through this ESR system is sent directly to a security dispatcher who can immediately deploy a security guard or local police. This also gives riders the option of sending text messages related to ride quality.

Miami-Dade County has a 311 third-party customer service app and ESR system, but MDT representatives indicated that few reports are made through this ESR system.

### *Related Policies or Procedures*

MDT employee rulebooks require the reporting of safety violations, including observed violations. In addition, the agency has instituted the Rail Service On-Track Good Faith Challenge Policy (SOP PR-RS-032) that grants employees the right to challenge, in good faith, the effectiveness of the roadway worker protection applied at the job location. Employees making the challenge are directed to remain clear of the roadway until the issue is resolved and/or the procedures are shown to be compliance with MDT's policy. Additionally, a roadway worker has the right to challenge any directive that would violate an MDT procedure, rule, or practice that could cause a potentially unsafe condition. MDT's Metrorail Roadway Worker Protection Plan also highlights the Good Faith Safety Challenge. The Good Faith Challenge Form includes blocks for the reporting employee's name, employee identification number, date, time, location (including segment of track), specific track, employee's statement, and signature. The responding authority(ies) use the form to document follow-up activities, corrective actions, and other activities performed in the investigation and resolution of the report. The challenge is based on the FRA program established at 49 CFR §218.97 that provides opportunities for employees to report any good faith determination that they have been directed to either take actions that would violate existing regulations or those that would violate a railroad's operating rules.

MDT's Administrative Policy POL-SS-008 ensures TWU participation in the UMSC, which formalizes stakeholder input to safety and security practices.

### *Reporting Practices*

The Safety Concern Form is for employees to report a safety concern (Figure 46). The employee must complete Section I and provide a copy to their supervisor and one to the Office of Transit Safety. The employee's supervisor completes Section 2 and, if resolution requires action by someone other than the supervisor, a copy of the form is submitted to the appropriate MDT Division and the Office of Safety and Security. A copy of the form that includes the narrative providing the outcome of the supervisor's evaluation and resolution and the action assigned and required completion date is provided to the employee.

If the employee is not satisfied with the evaluation and associated resolution, they may request a Transit Safety Review. The final approval of either the initially prescribed resolution or other corrective action is provided the MDT's Chief of Transit Safety and Security.

**REPORT OF SAFETY CONCERN**  
*Developed by the MDT Union-Management Safety Committee*

File: II A34-1  
 Rev. 6-90

**Purpose:** To document an employee's safety concern and the actions taken by management to address the concern.  
**Instructions:** a) Employee initiates Report by completing Section I. Employee turns form in to his supervisor and sends gold (back) copy to TRANSIT SAFETY, 4TH FLOOR, 111 N.W. 1 STREET, MIAMI, FL 33128, PHONE: (305) 375-4240.  
 b) Supervisor completes Section 2. If resolution requires action by someone other than the supervisor, enter "copy to \_\_\_\_\_ for action," required completion date, and forward yellow copy to appropriate MDT Division. Send white (copy) to Transit Safety. Pink copy is given to employee. (The supervisor may contact Transit Safety at (305) 375-4240 for assistance in evaluating the concern and/or developing corrective action.)  
 c) If the employee does not agree with the evaluation/resolution made by the supervisor, he may request a Transit safety review by marking the box "Transit Safety Review Requested" in section 3 and forwarding the pink copy to Transit Safety. Transit Safety will complete Section 3.

<b>SECTION 1: To Be Completed By The Employee (Press Hard)</b>	
Name: _____	Signature: _____ Title: _____
Date: _____	Phone: _____ Bus: _____ Rail: _____ Mover: _____ Other: _____
Description of Concern: _____ _____ _____	
Suggested Correction (if any): _____ _____	
<b>SECTION 2: To Be Completed By The Supervisor (Press Hard)</b>	
Date Reviewed: _____	
Reviewed By: _____	Signature: _____ Title: _____ Phone: _____
Evaluation: _____ _____	
Resolution: _____ _____	
Copy To: _____	For Action. Required Completion Date: _____
<b>SECTION 3: <input type="checkbox"/> Transit Safety Review Requested</b>	
To Be Completed By Transit Safety	
Reviewed By: _____	Signature: _____ Title: _____
Concur: _____ If No, Resolution Action: _____ _____ _____	
Chief, Transit Safety & Assurance Approval: _____ Date: _____	
Date Gold Received: _____	Date White Received: _____ Date Pink Received: _____

**Figure 46. MDT Report of Safety Concern**

MDT's online Report of Safety Concern or MDT Tracker app may be used by employees and the general public, although MDT representatives indicated that it is used primarily by members of the general public. Employees submitting reports through these mechanisms can do so

anonymously. The online form prompts reporters to identify the type of compliant—Metrobus, Metrorail, Metromover, Special Transportation Service, transit employee, or other. They are then asked to provide the date and time of the incident, including the hour and minute. Reporters can add narrative details, which they are encouraged to provide, in a text box. Subsequent screens ask route information and direction of travel, boarding location, destination, and vehicle number (if available). A final page requests the reporter’s contact information, first and last name, street address, ZIP code, daytime/evening telephone number, and email address. Reporters are notified that the report provided is a public record and are given the option of submitting anonymously. Employees who report through this ESR system receive confirmation within approximately 24 hours that the report has been received.

MDT’s *Construction Safety Manual* and associated contracting agreements require contractor to have their own safety plan and a safety representative on every project. Contractor safety representatives and the assigned MDT safety representative speak and meet regularly to address safety concerns of contracted employees.

Any report submitted, whether in hard copy, online, or through the MDT Tracker, is subject to a public records request, and MDT has received requests for this information. A separate MDT section handles all public record request activities.

MDT does not use a third party to collect data and manage their program. However, agency representatives indicated that this is something they may consider with the PTASP requirements.

#### *Post-Reporting Follow-Up Activities*

MDT tracks all safety concern reports using an Excel spreadsheet. For concerns submitted via the hard copy form, the employee’s supervisor begins the investigation and the Transit Safety and Security Office is provide a copy of the initial report. If the supervisor is unable to investigate and establish a remediation, the concern is forwarded to an appropriate MDT section to take action. As noted, if the employee is not satisfied with the evaluation and associated resolution, they may request a Transit Safety Review. MDT’s Chief of Transit Safety and Security makes the final determination and either approves the initially-prescribed resolution or alternate corrective action.

The Office of Safety and Security receive all reports submitted through the online reporting portal or through MDT Tracker. Reports are logged, and Safety and Security acts on the report or refers it to another MDT section management lead. Priorities are established using MIL-STD 888 guidelines or if deemed “safety critical.” MDT representatives indicated that they work closely with their transit operations group to develop mitigation measures or take corrective actions.

Once an investigation is completed, mitigation measures or remediation elements are identified and the corrective action process is completed, the employee who reported by the

hard copy form, the online portal, or the MDT Tracker application will receive notice of the investigation outcome and associated resolutions. If the report was submitted anonymously, the reporter will learn of the outcome through the Safety Committee or through their Division manager. All reports are closed out by the Office of Transit Safety and Security.

The data captured through the online and hard copy forms allow MDT to track events by location, identify locational hazards, and address those hazards in an effort to reduce safety risks.

### *Cost of Implementation*

MDT representatives did not have cost information to share. The online form and MDT Tracker were both developed in-house so there were limited costs associated with the initial development and updates.

### *Training*

When the new reporting ESR system options were implemented, MDT encouraged supervisors and unit managers to discuss these options with their employees. In addition, reporting requirements and options of submitting employee safety concerns are discussed during new-hire training and as needed. Curriculum is consistent across positions, including frontline employees and supervisors. It is also consistently an agenda item during monthly safety committee meetings. MDT does not provide contractor training.

### *Stakeholder Input*

While TWU was not involved in the initial design of the employee safety reporting options, they are integrated into the decision-making process through their membership and participation in the monthly UMSC. In addition, the committee developed the Report of Safety Concern form (Figure 47). As noted, MDT's Administrative Policy POL-SS-008 ensures TWU participation in the committee, as defined in the CBA. The committee's membership includes one management representative each from Metrobus Operations, Metrobus Maintenance, Metrorail Operations, Metrorail Maintenance, Metromover Maintenance, Track Maintenance, Power, Labor Relations, and Safety and Security. Seven representatives appointed by the TWU also serve on the committee.

MDT surveys employees about the ESR system. Participation is approximately 5–10 percent of MDT employees each year (Figure 40). MDT's audit and compliance section interacts with employees on a regular basis and asks about the methods available to them to report hazards. Employees are also asked about reluctance they may have about repercussions or punitive actions in response to their reporting. MDT representatives indicated that there have been no reports from this effort that reflect concerns about the ESR SYSTEM.

### ***Barriers to Implementation***

MDT representatives stated that there were not many challenges to ESR system implementation. While not described as a barrier, MDT representatives indicated that “prescriptive” ESR system guidance, such as that for FRA’s C<sup>3</sup>RS program, from FTA would be helpful.

### ***Elements of Success***

MDT representatives provided two examples of employee reporting that led to improved safety. In the first, an MDT station was under construction, restricting normal access to the typical disembarking station. An older female passenger was taken to a bus bay some distance from the Metrorail station. Lighting at the location was poor and was reported as presenting a safety and security issue. Within 24–48 hours of her initial report, MDT modified its practices during the construction period, disembarking passengers at the kiosk at the Metrorail station and in an area with better lighting. In another example, an existing bus route coming into Downtown Miami from Brickell had a very tight right-turn, and personal vehicles were striking the buses while in that turn (including a number of reportable events). Videos capturing these events, including close calls, were used to document the challenges at that location. MDT rerouted to avoid that specific corner. It benefited MDT in the reduction of transit agency losses from vehicle damages and claims and employees through the reduction of collisions deemed preventable.

EMPLOYEE SURVEY



OFFICE OF SAFETY & SECURITY  
AUDIT & COMPLIANCE SECTION

SECTION: <input type="checkbox"/> Rail Vehicle Maintenance <input type="checkbox"/> Track & Guideway <input type="checkbox"/> Traction Power		DATE: _____
<input type="checkbox"/> Mover Maintenance <input type="checkbox"/> Train Control		SHIFT: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
AUDITOR: _____		
QUESTIONS	RESPONSE	COMMENTS
1	ARE YOU AWARE OF THE SYSTEM SAFETY PROGRAM PLAN (SSPP) AND ITS PURPOSE?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
2	IF YES, HAS IT BEEN MADE AVAILABLE TO YOU?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
3	IF YES, HOW IS IT ACCESSIBLE?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
4	HAVE YOU HAD ANY MEETINGS THAT DISCUSSED THE SSPP?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
5	HAVE YOU HAD ANY TRAINING WITH REGARDS TO PPE WITHIN THE LAST YEAR?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
6	IDENTIFY YOUR DIVISION'S #1 SAFETY GOAL.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
7	DO YOU KNOW THE PROPER PROCEDURE FOR REPORTING A SAFETY CONCERN?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
8	ARE SAFETY CONCERN FORMS READILY AVAILABLE?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
9	ARE YOU AWARE OF THE EMERGENCY EVACUATION PLAN ESTABLISHED FOR YOUR WORK AREA (BUILDING)?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
10	HAVE YOU HAD ANY MEETINGS AND/OR TRAINING ON THE MDT HURRICANE MANUAL FOR YOUR RESPONSIBILITIES?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
11	DO YOU USE THE MATERIAL SAFETY DATA SHEETS (MSDS) ONLINE SYSTEM?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
12	DO YOU KNOW THE PROPER PROCEDURE TO STORE HAZARDOUS MATERIALS?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
13	HAVE YOU HAD ANY TRAINING WHICH EMPHASIZES THE SAFE HANDLING OF HAZARDOUS MATERIALS WITHIN THE LAST THREE YEARS?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
14	IS HAZMAT SPILL EQUIPMENT / MATERIAL AVAILABLE?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
15	WHAT IS THE PROCESS FOR IDENTIFYING AND RESOLVING AN UNSAFE CONDITION?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
16	USE OF REQUIRED PPE MONITORED BY SUPERVISOR?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
17	WORK AREA CLEANLINESS MONITORED BY SUPERVISOR?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
18	I HAVE BEEN TRAINED IN SAFE WORK PROCEDURES FOR MY ASSIGNMENTS.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
ADDITIONAL COMMENTS		

Figure 47. MDT Office of Safety and Security, Audit and Compliance Section Employee Survey

## Sacramento Regional Transit District – Sacramento, California



### ***ESR System Program Description***

Sacramento Regional Transit District (SacRT) implemented an anonymous near-miss employee reporting program through the use of a hard copy form in 2010. The implementation of the form was the result of SacRT receiving several complaints of close calls with wayside workers who were on the right-of-way and not following proper procedures and exhibiting other risky behavior. Realizing that discipline was counterintuitive to producing desired system safety improvement results, SacRT focused on encouraging employees to report the events anonymously and non-punitively. SacRT safety representatives wanted to have the ability to be made aware of these events and to track them to ensure there were no agency-wide contributing factors to close call events.

In addition to employee safety reporting opportunities, there are campaigns such as “See it, Hear It, Report It” and mobile phone apps such as Alert SacRT that are targeted toward the traveling public to report non-emergency crimes or suspicious activity. While employees have used these alternative reporting methods on rare occasion, most reports are made by the public and are related to station cleanliness or overall station appearance.

### ***Related Policies or Procedures***

SacRT has an SOP in place to govern the use of the anonymous near-miss employee-reporting program. The SOP defines that willful negligence and acts of sabotage are not included in the non-punitive aspect of the near miss reporting program.

### ***Reporting Practices***

SacRT agency leaders within the Operations, Maintenance, Safety, Human Resources, and Management departments are notified via email that a near-miss report was submitted, and a confirmation of the receipt of the submission is sent to the reporting employee within 24 hours. The Director of Light Rail and representatives from Operations, Maintenance, Risk, the Chief of Safety, and the California Public Utilities Commission (CPUC) meet monthly to discuss safety issues, including reported near-miss events or hazards that were reported by employees.

Once submitted, operations management and safety and risk management have access to the near-miss reports, and the Hazard Fire Life Safety Resolution Committee (HFLSRC) is responsible for reviewing and taking action based on the information provided. The Safety Department performs internal tracking using an Excel spreadsheet. However, the agency is currently in the

process of transitioning the tracking aspect of the near miss reports to SacRT's SharePoint site to allow for seamless communication between departments.

The majority of near miss reports that are submitted are anonymous. Prior to anonymity being an option, SacRT was not receiving near-miss reports. Once the anonymous option was incorporated, the average number of near-miss reports increased to 3-4 per month, then subsequently decreased to about 1 report every few months; however, between May and July 2019, there were no near-miss reports. SacRT credits the reduced volume of near miss reports to an improved reiteration of the processes in place.

In addition to near miss reporting options in place at SacRT, there are occurrence reports, which are used to report issues such as facilities that need to be repaired, branches that come in contact with the catenary or vehicle, shopping carts, potholes, etc. Occurrence reports are transferred to facilities or wayside departments for repair or mitigations to be implemented.

### *Post-Reporting Follow-Up Activities*

When a near-miss event or hazard is reported via the near-miss reporting form, the first step after acknowledging receipt of the report is to investigate the report details. The HFLSRC will pull video from the light rail vehicle and review footage from onboard or station cameras that may help to clarify what occurred. Once the review committee can successfully identify what occurred, if deemed necessary, training is formulated to ensure that the event does not occur again, and coaching ensues. Follow-up is also performed after training and coaching have been completed to ensure that the employee(s) successfully learned/improved from the provided training.

### *Training*

Training is provided to all SacRT personnel during new-hire and refresher training to inform employees of the definition of a near-miss and how to report a near-miss, including how to use the forms and where to submit them. The training related to the anonymous near-miss employee-reporting program does not vary by employment position, as all employees receive the same training. Additionally, non-SacRT personnel who work on the right-of-way are provided with the same near-miss reporting training that SacRT employees receive. Remedial training may be required depending on the outcome of HFLSRC investigations.

### *Stakeholder Input*

SacRT collaborated closely with their two labor unions to develop and implement the non-punitive anonymous employee near-miss reporting program. The ATU represents SacRT's transit operators, and the International Brotherhood of Electrical Workers (IBEW) represents their mechanics. Union representatives provided input to the design of the forms and were instrumental in spreading the news of the near-miss reporting opportunity and encouraging all employees to report all identified near-miss events and hazards.

### ***Barriers to Implementation***

The main reported barrier present in the development stages of the non-punitive near-miss reporting program was described as union pushback. Once the union was aware and convinced that the program would be used in a non-punitive nature and that reports could be submitted anonymously, it was supportive and involved in the iterative development of the program. As noted, prior to being able to submit anonymous near-miss reports, SacRT had a difficult time encouraging employees to report hazards or near-miss events.

### ***Elements of Success***

SacRT was awarded the Transportation Security Administration's (TSA's) Gold Standard Award in 2018 for their improvements in safety and security along their light rail line. A significant element of those safety improvements was the development and implementation of the employee SRS and the procedures established for follow-up activities. In addition, TSA recognized the success of the Alert SacRT mobile phone app. These aspects of SacRT's safety program contributed to their selection as a TSA Gold Standard Award recipient.

## Sarasota County Area Transit – Sarasota, Florida



### ***ESR System Program Description***

SCAT has used a Hazard Report Form for many years, a hard copy form that can be found in various locations throughout the organization. Within the last year, a new reporting mechanism was made available that allows SCAT employees to non-punitively and anonymously report hazards online through a link on SCAT work computers, through personal computers or smart phones, or via a safety hotline. Since the inception of the new reporting mechanisms, the level of reporting has increased, so SCAT representatives feel their hazard ESR system is improving.

Employees are assured of non-punitive responses when reporting unsafe acts, close call events, or accidental risky behavior as long as the reported event did not result in a loss. SCAT defines a loss as any required repair that results in a cost to the agency that requires an insurance report. Employee announcements and all labor–management meeting minutes explicitly state that:

It shall be the policy of Sarasota County Area Transit that any unsafe act, close call, or accidental risky behavior will not be penalized as long as the issues is self-reported prior to a loss. We want to hear about it and prevent future risk!

### ***Related Policies or Procedures***

While the process of reporting a hazard has been available for many years at SCAT, SOP- 610, *Hazard Self-Reporting*, was put into effect on July 1, 2019. The SOP has a defined purpose of establishing “a process for encouraging employees of SCAT to self-report dangerous situations” to allow the agency to develop a full understanding of the risks the agency faces. According to SOP-610, “any unsafe act, close call, or accidental risky behavior will not be penalized as long as the issue is self-reported prior to a loss.” The SOP also includes specific valid examples of self-reporting issues, including:

- Hazardous intersections
- Running a malfunctioning red traffic signal
- Dangerous service stops
- Road hazards
- Potentially confrontational passengers
- Any other circumstance that places bus operators, passengers, or the general public at risk.

Employees are instructed to self-report via a hazard form, Smartsheet link, email, call to the Safety Manager, or the SCAT Safety Hotline. Employees are encouraged to report anonymously and report every hazard in the spirit of increasing communication and eliminating hazards.

### *Reporting Practices*

Anonymous safety reporting can be completed online, and the reports are sent directly to ATU Local 1701 and senior management. SCAT uses Smartsheet as a third-party data collection tool for all safety data that are reported electronically. While all reports can be made anonymously if preferred, reporting employees also have the option to include their personal contact information if they would like follow-up information regarding the hazard or incident that they reported. When an employee witnesses a hazard, they are encouraged to report it using a SCAT computer or from their personal electronic device via <https://app.smartsheet.com/b/form/a052079d4dc24b38bd877aebb1f46958>. The link leads to the Smartsheet form used to report any dangerous situation or act. It is intended as a self-reporting tool for near-miss events, even if they were the fault of the operator. While the form is anonymous, employees may add a code to their report so that they can claim the reported issue in the future if they choose. Additionally, desired additional pictures or supporting documents must be emailed to the Safety Manager. If an employee wishes to remain anonymous but has supporting documentation, they have the opportunity to present their supporting documentation to their union representative without requiring a direct email to the Safety Manager. The only required fields on the online form are the location of the hazard, the situation, and the date. All other fields are optional and include:

- How can we fix this?
- Other information
- Name (if you would like a follow-up)
- Phone number (if you would like a follow-up call)

While the hard copy forms remain available at SCAT, employees are encouraged to use the new reporting methods to improve follow-up and ease of tracking.

### *Post-Reporting Follow-Up Activities*

Once submitted, key management, union, and Safety Committee members (comprising operators and maintenance, safety, and operations representatives) all have access to the data reported to ensure widespread knowledge of the issues occurring at the agency. In addition, dissemination of the reports reinforces that responsible parties review everything submitted for risk management purposes. SCAT's process of sharing the reports ensures that all employees know they are being heard and that their opinions matter to management. SCAT also takes every opportunity to notify frontline employees when actions have been taken in response to an employee-submitted area of safety concern or recommendation.

The Safety Manager is responsible for reviewing the report and initiating follow-up action based on the information provided. Reports that require immediate attention are distributed to various departments throughout SCAT as needed, and non-urgent reports are reviewed on a monthly basis at monthly Safety Committee meetings.

## ***Training***

SCAT introduces the agency’s anonymous employee safety reporting process during new-hire training, and the reporting alternatives are refreshed on the “safety television” located in the employee lounge, which displays different safety messages throughout the day. SCAT employees are trained to “blow their own horn” by reporting everything, as shown in an excerpt from SCAT’s training materials in Figure 48. SCAT encourages employees to report hazards and near misses through the safety reporting process and when they witness another bus operator doing something great. They are encouraged to report customer compliments and other celebratory daily wins so they can be shared organization wide.



**Figure 48. Excerpt from SCAT Hazard Report Form Training**

## ***Stakeholder Input***

Union representation assisted SCAT management in the development and implementation of the reporting formats used. SCAT’s Safety Manager, members of the Safety Committee, and ATU worked collaboratively to define what was needed to develop a non-punitive hazard reporting program. ATU is also included in the hazard report review process to ensure anonymity when desired.

## ***Barriers to Implementation***

One challenge that SCAT has reduced with the introduction of the electronic submission alternatives was the possibility that hard-copy forms would be misplaced or go through several managers prior to reaching the best person within the agency to mitigate the hazard. The electronic reporting alternatives streamline the tracking and trending of hazards reports within the agency.

The key barriers that SCAT has experienced are encouraging employees to report hazards and ensuring them that their input is valued and that they will be protected from punitive consequences. SCAT recognizes that these reflect the maturity of the safety culture and understands that advancing safety culture, and the associated level of trust, takes time to improve.

### ***Elements of Success***

SCAT is an example of a transit agency with a successful informal hazard reporting process. Although the program is not mature in its policy development, the process has matured and improved overtime. SCAT has found success through this ESR system, illustrated in the examples provided. The agency was able to successfully close a minimally used bus stop after a report was received detailing the garbage and loitering issues at the stop. Overgrown trees that were blocking operator views and those of waiting passengers were trimmed due to a hazard report that was received. Other hazard reports have led to route change improvements, the implementation of de-escalation training into the refresher and new-hire training materials, and route scheduling improvements. Each of these improvements, defined as successful by SCAT, and subsequent action taken as a result of hazard reporting are highlighted throughout SCAT to promote the use of the ESR system. SCAT uses these success stories as opportunities to boost the importance of receiving hazard reports and emphasize the pride that the reporting employee feels when they witnessed changes occurring in response to their input. SCAT representatives suggested that this method of safety promotion—positive reinforcement—is one way to improve system safety.

At least partially attributed to SCAT's ESR system between 2016 and 2019, bus operator exposure to potentially violent situations decreased by 44 percent on buses and by 71 percent at transit stations and stops. SCAT defines violent situations as those that involve verbal abuse, threats, assault, vandalism, passenger evictions, or any passenger refused service. Additionally, through a strategized focus on the promotion of self-reporting, and the subsequent safety successes, the volume of self-reports increased 300 percent between 2018 and 2019.

SCAT credits the success of their hazard reporting program to the successful involvement of labor and management in the initial planning and implementation of the program. They also characterize the process of including the labor union in the distribution of hazard reports as a successful practice. This allows labor representatives to ensure the anonymity of reporters and authenticate the safety issues reported. Finally, SCAT credits their success to thorough follow-up with anyone who reports and the engagement of the Safety Committee and the entire agency through newsletters and videos. SCAT representatives touted the importance of accountability in the follow-up process, which ensures that all intentions are clearly defined, reports are thoroughly investigated, outcomes are effectively communicated, and mitigations are executed.

## Southeastern Pennsylvania Transportation Authority – Philadelphia, Pennsylvania



### *ESR System Program Description*

Southeastern Pennsylvania Transportation Authority (SEPTA) has many different methods by which employees can report hazards in a non-punitive manner—they can notify their managers verbally, fill out a Hazard Report Form, or notify their Location Safety Committee representative, options that were instituted over 20 years ago. Electronic options for employee safety reporting include completing an online form found on SEPTANow, the employee internal intranet, or sending an email to [systemsafety@septa.org](mailto:systemsafety@septa.org). Employees also have the option to report hazards through a non-emergency safety hotline. The online and hotline reporting options have been in place at SEPTA since October 2017. Some employees have also used SEPTA’s VERITAS Customer Service Tracking System to report hazards. The SEPTA commuter rail system is a part of FRA’s C<sup>3</sup>RS program, a reporting partnership with the unions and FRA, with NASA as the third-party data administrator. The reporting of close call events and safety hazards at SEPTA is intended to be an additional tool for improving safety, not a replacement or circumvention of any other safety programs or procedures in place.

### *Related Policies or Procedures*

SEPTA has an MOU in place with FRA, the Brotherhood of Locomotive Engineers and Trainmen (BLET), and the Transportation Division of the International Association of Sheet Metal, Air, Rail and Transportation (SMART) that details the C<sup>3</sup>RS program. The C<sup>3</sup>RS program was developed with the purpose of improving railroad operations by providing all SEPTA employees performing activities in support of SEPTA railroad operations with the opportunity to report all close call events and safety hazards without the fear of punishment or retribution. SEPTA’s C<sup>3</sup>RS MOU defines a close call as:

... an opportunity to improve the safety of activities in support of SEPTA railroad operations in a situation or incident that has the potential for more serious adverse consequences to railroad safety. The reported close call represents a situation in which an ongoing consequence of events was stopped from developing further, preventing the occurrence of potentially serious safety-related consequences. Fatalities and personal injuries do not fall into the category of a close call and will continue to be reported and handled under the current SEPTA and FRA regulations, or any subsequent revisions to SEPTA rules and/or FRA regulations.

For non-commuter rail modes, SEPTA has a hazard management program defined and outlined in their Multi-Modal System Safety Program Plan (SSPP), which will be transitioning into an Agency Safety Plan (ASP). Within the Hazard Management Program General Section 9.1, mid-level managers and line supervisors are explicitly responsible for ensuring that the safety and environmental programs, procedures, and protocols applicable to their mode are implemented at every level. Therefore, hazard resolution by field personnel is preferred, when appropriate. Hazards that are not routine or readily correctable at the grassroots level go through a formal process to adequately identify their risk level and develop appropriate mitigation strategies. Unusual conditions identified that cannot be readily assessed and corrected are typically referred to the System Safety Department by location management, where hazards are classified using the Military Standard 882 (MIL 882) as the guiding principal default analysis method.

### *Reporting Practices*

SEPTA's C<sup>3</sup>RS reporting procedures indicate that SEPTA employees who observe a safety problem or experience a close call event should report the problem or event and describe it in detail to NASA. NASA developed a close call report form that collects information related to the date, time, location, contributing factors actions taken, and potential consequences of an event, along with any other information necessary to fully describe the event or problem. Employees have the option of submitting either an online form or a paper form that is available at work locations. For paper reports, NASA mails a receipt to the employee. If insufficient data are included in the initial report, NASA reaches out to the reporting employee to gather the additional necessary information. Once a report is accepted, NASA evaluates and de-identifies all information and provides it to the Peer Review Team (PRT) for evaluation. The PRT consists of local FRA, SEPTA, BLET, and SMART representatives that meet regularly to solve problems.

The System Safety Department reviews all safety reports received electronically (but not associated with the C<sup>3</sup>RS program) and assigns them to the work group responsible for addressing the concern. These reports and assignments are logged on an internal Hazard Tracking Log spreadsheet to keep track of the status of the subsequent follow-up actions. The Hazard Tracking Log includes:

- Alpha numeric hazard identifier
- Mode
- Date discovered
- Location
- Method of discovery
- Description
- MIL 882 hazard classification
- Reference to corrective action plan

When a report is made directly to a manager or through the Hazard Report form, if the concern cannot be handled immediately, the manager will put in a maintenance request form to address infrastructure concerns. The responsible party is then notified of the concern and is responsible for addressing the concern based on the priority order determined in the System Safety Department MIL 882 hazard classification. After the request is completed and verified, the request is closed out by the System Safety Department on the Hazard Tracking Log.

Every issue that is emailed or called in through the safety hotline goes directly to the Safety Department for review, and the System Safety Department ensures that corrective actions have been assigned to the appropriate department. If a safety concern is reported through the VERITAS customer service system, each reported issue is assigned to the Safety Department and is tracked in VERITAS software until it is closed out. If an issue has not been resolved within 20 days, a reminder notification is sent to the System Safety Department to ensure follow-up actions are occurring. Most issues are closed within 30 days.

#### *Post-Reporting Follow-Up Activities*

If an email address or other contact information was provided, the employee who made the safety report will be notified of the outcome, once the report has been closed. If a safety report is received through one of SEPTA's 30 Location Safety Committees (LSC), then all follow-up activity related to that particular topic is reflected in monthly meeting minutes. Ultimately, regardless of how the hazard was reported, the employee will be informed of the hazard mitigation measures implemented; if not satisfied with the solution, they can either re-report the issue or elevate the issue to the union or through the Senior Leadership JHSC, which is over all LSCs.

To measure and track the efficacy of their hazard ESR system, SEPTA collects and maintains safety data and documents and tracks many performance measures. This information is reviewed, and the trends are used to define the effectiveness of the reporting process. Performance measures SEPTA tracks to monitor the efficacy of their ESR system include:

- Lost-time and non-lost-time injury rates per 200,000 work hours
- Customer complaints
- Issues reported
- Length of time taken to address issues
- Vehicle accident rates per 100,000 miles

SEPTA representatives indicated that there are challenges associated with maintaining several different tracking systems for each type of necessary reporting. For example, data required to be collected and reported for SEPTA's SMS in accordance with the requirements of the Federal Public Transportation Law (49 U.S.C. § 5329 and 49 U.S.C. Part 673) are captured differently than data received through the LSCs, and accident investigations are captured in the same system as the process audits. Additionally, if the State indicates that it would like to see something addressed, that is logged into yet another data system. To reduce this data

challenge, SEPTA is investigating to ability to create a master data SharePoint that will enable anyone in the organization to enter and access hazard information.

Another challenge to this process is that SEPTA has both FTA State Safety Oversight (SSO) and FRA oversight. The regulatory responsibilities under both 49 CFR 673 and the future 49 CFR 270 do not lend themselves to one master tracking list, since the SSOA does not want to see FRA railroad-related items and FRA does not want to see FTA/SSO-related items. Any master log that would be developed would need to have the capability of producing separate list for FTA/SSOA and FRA.

### ***Training***

During new-hire training, SEPTA addresses the importance of identifying and reporting workplace hazards. In addition, 30 minutes of new-hire orientation is devoted to informing employees how to identify and report safety concerns. SEPTA employees are trained to report all concerns, because “hazards cannot be addressed if they are not reported.” The hazard reporting training emphasizes that employees are never too busy for safety and that reporting hazards is faster and easier than ever before with the new reporting options using email, the hotline, or the online SEPTANow portal. SEPTA teaches employees that the benefits of the new reporting mechanisms available make it easier to report, allow them to check on the status of the follow-up measures that are instituted, and afford System Safety the opportunity to provide feedback and track and trend the hazard reports. Additionally, they stress that the reporting can be anonymous. During semi-annual internal employee safety days, generally held in the Fall and Spring of each year, managers review various safety topics, discuss trends and issues at SEPTA and within the industry, and remind employees of the options available to report hazards.

In addition to the new-hire training focused on hazard reporting and the semi-annual refresher training provided at SEPTA internal safety awareness days, SEPTA also displays posters at all locations within the agency that detail the various ways an employee can report a hazard. An example of the poster is shown in Figure 49.

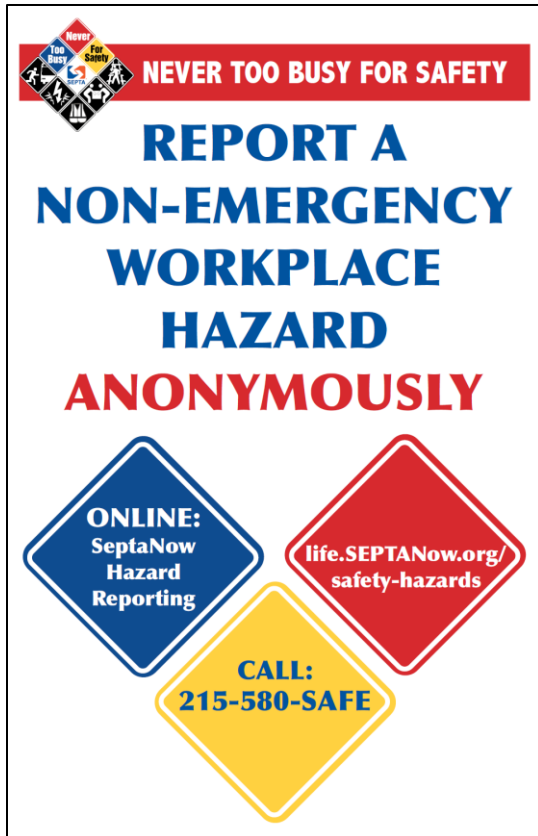


Figure 49. SEPTA Hazard Reporting Poster

### ***Stakeholder Input***

SEPTA’s System Safety Department led the development of the safety reporting form, email, and hotline options. However, SEPTA works closely with their labor representatives to ensure continuous improvement in the processes in place. There are over 30 LSCs at SEPTA, each of which is a union management working group of employees who meet monthly to discuss safety concerns and review accident/injury trends. A System Safety representative is assigned to each LSC, who participates in the monthly LSC meetings. Employees who are actively involved in the LSCs are encouraged to offer ideas for improvements to the safety reporting processes.

The C<sup>3</sup>RS program in place for the commuter rail operations at SEPTA includes stakeholders from FRA’s Office of Railroad Safety, NASA, SEPTA, BLET, SMART, PRT, and the PRT Support Team. The C<sup>3</sup>RS MOU details the roles of each stakeholder and the necessary actions for modification or cancellation of participation in the program. The MOU explicitly states that confidentiality provided under the C<sup>3</sup>RS MOU survives its cancellation.

### ***Barriers to Implementation***

Improving the safety culture of SEPTA to ensure that all hazards are reported without fear of retaliation or retribution is something that SEPTA representatives are working to improve. Safety surveys are conducted every three years, and the most recent survey, which was conducted before the implementation of the online hazard reporting program, asked three

questions related to hazard reporting—Do you know how to report a hazard? Would you use the LSC or go through your manager? Are you comfortable reporting hazards? While the majority of employees responded that they knew how to report a hazard, SEPTA realized there was room for improvement in terms of ensuring that managers were addressing reported issues and improving confidence in the process to help employees feel more comfortable reporting.

### ***Elements of Success***

SEPTA is in the process of successfully leveraging the benefits of their involvement with the FRA C<sup>3</sup>RS program to provide guidance and minimize the challenges associated with establishing an authority-wide hazard reporting program across both rail and non-rail modes.

When concerns are reported that have the potential to affect more than one location, the concern is escalated to SEPTA's Joint Safety Committee for an evaluation of possible mitigation measures. The Committee includes both union and management representation, who work together to produce practical applicable solutions to global issues that impact the entire organization. An example of this type of concern was a report related to the operator's seat, specifically the repeated whole-body vibrations and inability to properly adjust the seat position to accommodate all operator body types. This report led to an evaluation of the operator seat and the installation of new bus seats. Similarly, a concern was reported related to mirror placement on the buses, which led to changes in the placement of all bus mirrors on SEPTA's fleet.

SEPTA noted that the success of the hazard reporting program can at least be partially attributed to the results of seeing changes implemented within the organization. SEPTA representatives remarked that as soon as an operator realizes that their concern was heard and they see their personal ability to effect change, they feel empowered. That empowerment encourages operators to share their feelings with co-workers, which, in turn, increases the acceptance and utilization of the program.

# Tri-County Metropolitan Transportation District of Oregon – Portland, Oregon



## ***ESR System Program Description***

TriMet's ESR system is referred to as a Request for Safety Assessment (RSA), which is intended to provide an outlet for employees to report safety and security concerns that involve potential harm to persons or property related to TriMet. This ESR system and associated processes were put in place to support the safety risk assessment function of an SMS program. The program has been in place since 2012 and was established to allow employees to report safety concerns through an internal intranet, immediate supervisors, or the RSA Hotline. Employees have the option to remain anonymous when they submit their RSA, in which case the employee is routed to NAVEX Global, a third-party administrator that collects and evaluates the data, routes issues to relevant TriMet departments for notification and action, and responds to the employee who initiated the report with the resulting outcome. All non-anonymous RSAs are managed internally within TriMet.

## ***Related Policies or Procedures***

TriMet's RSA system and associated processes were put in place to support the safety risk assessment function of the agency's SMS. The agency-implemented Operating Procedure SSE-053, "Request for Safety Assessment (RSA)," last revised in August 2016, defines the purpose, specific responsibilities by role, and definitions related to TriMet's RSA. The purpose of the RSA program and the associated procedure is to provide a means for any TriMet employee to communicate safety concerns and to standardize the submission and review of the information that is communicated. RSAs typically include issues or hazards that cannot be resolved by the employee's immediate supervisor or manager.

TriMet has instructed employees that all collisions or issues that require immediate emergency response be reported to the employee's supervisor or dispatch/control in accordance with agency procedures rather than through the RSA process. All non-safety related issues are reported through the online operator gateway portal or through the maintenance defect card process.

## ***Reporting Practices***

TriMet employees can submit an RSA by going to the TriMet website home page (an internal intranet site for employees), by accessing the Safety and Security home page link (also within the intranet site), by contacting an immediate manager or supervisor, or by calling the RSA Hotline. If a TriMet employee calls the RSA Hotline, a safety staff member will follow-up with the caller to gather details, and the caller may be asked for additional details. Regardless of

how an RSA is received, it is recorded in the database under the name of the employee who reported the issue. Once an issue is recorded, the database sends an automated email receipt to the employee who initiated the RSA to indicate successful submission.

The RSA Administrator is responsible for assigning key personnel from one or more departments to request input or action related to each RSA received. He is also responsible for correspondence between safety committees and continuous improvement teams to garner input and recommendations on RSAs. The RSA Administrator also presents monthly reports to TriMet's Transit Change and Review Committee (TCRC), whose membership includes middle managers, directors, and executive directors.

### *Post-Reporting Follow-Up Activities*

Upon receipt of each RSA submission, the RSA Administrator conducts an initial review to ensure the submission is complete and that there are no identical open RSAs. He then assigns the RSA to applicable departments for review and input. Occasionally, this step includes coordination with external parties as well, such as City Engineers who should be contacted to request a signal timing change. The reviewing department is responsible for reviewing the reported issue, conferring with internal departments and external parties that may be affected by the issue, conducting site visits and interviews, reviewing other technical reports and information, and issuing associated remedies.

The manager of each responsible reviewing department, or designee, is responsible for ensuring that the TCRC reviews and approves all matters related to configuration management, operating procedure changes, and modifications to equipment, facilities, or infrastructure. They are also responsible for prioritizing responses upon receiving notification of an RSA, because timely response is necessary to ensure that safety concerns are properly addressed. Reviewing departments must communicate actions taken by providing documentation in the database within 14 business days of notification of an RSA action item. Assigned reviewing department staff are required to keep their action items in "open" status until their actions and all communication are complete. Finally, the reviewing department is responsible for closing out the action items in the RSA database once the item has been completed. The RSA Administrator is then responsible for reviewing the actions taken to ensure completeness.

If a reviewing department fails to respond to their action item assignment within the 14-day time limit, the RSA Administrator sends a reminder email to the department and the reviewer's manager to ensure compliance. When an RSA has led to a final resolution, the RSA Administrator composes and documents the final resolution in the database and provides a written response to the requestor, including contact information in case the requestor has additional questions. The RSA Administrator then closes out the RSA in the database but maintains the RSA status report. The RSA Administrator provides monthly status reports to the Executive Director and the Safety, Security, and Environmental Services divisions and to the Director of Safety Management Systems and Environmental Services. The last duty of the RSA

Administrator defined in the policy is to assist RSA requestors, as needed, including responding to calls received on the RSA Hotline.

Employees can follow-up on the status of their RSA through the online intranet site. They can search information by specific keywords, or they can view the Status Summary Report, which details the status of each RSA. The Status Summary Report includes the RSA tracking number, date reported, safety concern, location/route (if applicable), assessment status, follow-up status for tracking, completion date when review was closed, name(s) of assigned review(s) and the dates of assignment. Employees can also call the RSA hotline to check on the status of an RSA, and hotline representatives will provide the same detailed information. Status Summary reports do not include detailed action notes for the specific purpose of limiting the size of the status report.

Surveys are sent to employee initiators with each letter of resulting outcome to solicit feedback on ways in which TriMet could improve the RSA process. This survey further emphasizes the value TriMet places on feedback from their frontline operators, which will inevitably make employees understand that they are heard, thus encouraging more employees to use the process to report hazards.

Accountability through oversight and follow-up is possible through TriMet's RSA Team. The RSA Team is assembled in accordance with the parameters of the RSA and typically includes a Senior Safety Specialist, the Director of Safety, managers in the affected department, and subject matter experts (if known and on staff). The RSA Team meets periodically to review and provide oversight on specific RSAs as needed to ensure that all appropriate evaluations have occurred and that reasonable recommendations have been provided. The RSA Teams is also responsible for rendering assistance as necessary to bring open RSAs to closed status using detailed explanations and effective resolutions. The RSA Administrator is a designated member of the RSA Team.

### ***Training***

The RSA program was designed to be extremely user-friendly and not require much more than an introduction and program promotion. TriMet promotes the program through communication articles, a module that was added to recertification training and highlights the successes of the process through *ExpressLine* articles. Supervisors and frontline employees all receive the same training, regardless of employment position.

### ***Stakeholder Input***

TriMet representatives interviewed for this report were not aware of the specific details of the initial implementation of the RSA process due to their tenure and turnover of employees who were involved in the development of the program. However, they reported that there was a concerted effort from district management to frontline employees to support inwardly focused activities including analyzing the safety culture and developing and implementing programs to

advance risk ownership, safety efforts, and instill safety as the core value at TriMet. These efforts and their associated outcomes were a part of the design and implementation of the RSA process.

### ***Barriers to Implementation***

An important challenge to the implementation of the RSA process reported by TriMet representatives was establishing the trust necessary for employees to feel that their voices are heard, their opinions matter, and they can be part of the solution. Once TriMet employees felt that management was listening, and changes occurred as a result of RSAs, employee hazard reporting increased and peer encouragement to report hazards improved as well.

### ***Elements of Success***

One way that TriMet successfully promoted frontline employee involvement was through the development of BOCIT, which is instrumental in producing solution alternatives for the various reported RSAs and provides a unique opportunity to foster employee buy-in from the reporting to the mitigation phase of the RSA process. Since its development, BOCIT has been so successful that they were awarded the Oregon Governor's OSHA award in 2015 for their "extraordinary contributions to the field of workplace safety and health."

Through the RSA process, TriMet bus operators reported that dashboard switches and controls that are necessary to reach repeatedly in a shift are difficult to reach and can lead to repetitive strain after long shifts. This RSA report led to an ergonomic study of all 3000-series buses, which ultimately led to a reduction in the width of the steering wheels from 20 inches to 18 inches for easier use, the kneel/ramp switch was relocated off the dash, and the control handle was upgraded to reduce repetitive strain. Additionally, key indicator lights were brought down to the dash from the overhead light board for ease of view and turn-signal light buttons were widened so the left foot could fit between them. Other associated changes included:

- Fare boxes were lowered, and pedestals were removed to increase visibility.
- Mobile data terminals (MDT) were moved closer to the operator for easier reach.
- The glare from interior lights was reduced using red diffusers and configuration changes.
- Bus mirror configuration was adjusted to improve operator line-of-sight.

Another RSA led to the successful resolution of loud buzzer sounds that were occurring on new 3600-series buses when the turn signal or hazard lights were applied. The initial RSA indicated that a "turn signal alarm nightmare" occurred when using the turn signals and also noted that the alert signal was too loud when the hazard light was engaged. This RSA led to communication with the manufacturer, which was able to remedy the situation so the alarm would sound only when the hazard lights are applied only while the bus is in motion and not at all when the turn signals are used.

Another noise-related RSA was submitted, a complaint of the noise level of the ADA ramp signal. A campaign was initiated, and BOCIT found a comfortable solution by simply relocating

the beeper underneath the bus to lower the volume. Another RSA indicated concern about the lack of exterior lighting at the rear door. This RSA ultimately led to improved exterior lighting, which TriMet representatives stated improves passenger safety.

## Washington Metropolitan Area Transportation Authority – Washington, DC



### ***ESR System Program Description***

The Washington Metropolitan Area Transportation Authority (WMATA) was the first rail transit agency in the nation to implement a Confidential Close Call Reporting System (C<sup>3</sup>RS) in 2013. This program was developed in response to NTSB Recommendation R-10-017 to WMATA to develop and implement a non-punitive safety-reporting program to collect reports from employees, regularly review the reports, and share the results of those reviews organization-wide. This recommendation stemmed from a train-on-train collision at Fort Totten Station in Washington, DC in June 2009. The NTSB found that WMATA's "lack of a safety culture" contributed to the collision, and the establishment of a non-punitive safety-reporting program would lead to an improved informed just culture.<sup>129</sup>

With a goal of improving transit safety, WMATA's C<sup>3</sup>RS program gathers data related to safety issues that might otherwise not be reported to allow for the implementation of proactive and preventive safety actions across all operational modes. In 2016, the C<sup>3</sup>RS was expanded to include bus operations, also making WMATA one of the first transit agencies in the nation to have this type of ESR system for transit buses.

To support these safety initiatives, WMATA contracts with BTS to confidentially collect and manage employee safety reports and report trend analyses to the agency. This partnership between WMATA, BTS, and the labor unions is governed by the Close Call MOU, which defines close calls as "a situation or circumstance that had the potential for safety consequences but did not result in an adverse safety event."

WMATA's C<sup>3</sup>RS program provides the reporting employee protection from discipline but does not eliminate employee accountability for serious rule violations, which are not eligible for protection. Events that are excluded from close call reporting protection include events that resulted in any injury, intent to damage operations or equipment, purposely endangering others, acts of sabotage, criminal offenses, substance abuse or the inappropriate use of controlled substances, the identifiable release of hazardous material, and rail- and bus-specific violations.

### ***Related Policies or Procedures***

WMATA updated its MOU with BTS on July 23, 2018. The purpose of the MOU is to document the mutual interest between WMATA and its employees to improve system safety; establish the process used to capture trends and analyze data; identify safety systemic, organizational, or procedural issues; and establish the process used to define corrective actions and associated

preventive measures. The MOU outlines steps in the reporting process, eligibility criteria, generalized reporting procedures, criteria for close call acceptance, time limits to initiate and finish reporting to receive protection from discipline, confidentiality, non-punitive information, the use of the data, preventative safety actions, and stakeholder responsibilities.

### *Reporting Practices*

WMATA employees who see or experience unsafe conditions are encouraged to submit a report to BTS via an online form or phone number. Employees are encouraged to complete their report online within 24 hours of the close call event. Each employee must submit their own report to be eligible for protection from discipline. BTS collects the information, performs a confidential interview with the employee, and removes all identifiable information from the report prior to presenting information to the joint WMATA/Labor Peer Review Team. All information collected by BTS is classified as CIPSEA data, which not only protects the employee's identity but also protects the employee from FOIA or subpoena requests. Any violation of CIPSEA, which includes willful disclosure of information, carries fines and possible imprisonment.

### *Post-Reporting Follow-Up Activities*

Information regarding the follow-up actions that occurred as a result of a Close Call Report is shared via quarterly newsletters distributed by management and the unions and are posted on WMATA's intranet at [http://metroweb/departments/DGMO/Pages/Close-Call-Reporting-\(Quarterly\)-Reports.aspx](http://metroweb/departments/DGMO/Pages/Close-Call-Reporting-(Quarterly)-Reports.aspx) and a BTS managed website at [https://closecall.bts.gov/c3rs\\_publications.htm](https://closecall.bts.gov/c3rs_publications.htm).

As shown in Table 4, once a close call report is submitted and BTS has accepted the close call event or unsafe condition, a summary of the report excluding any identifying information is submitted to the PRT for analysis. The PRT is a joint Metro/Labor committee that meets regularly to establish root causes of reported events and recommend actions that WMATA should take to prevent these reported events from recurring. The PRT includes local representatives from WMATA rail and bus transit infrastructure management, union officers and members, WMATA safety management, and BTS. PRT members are trained to perform root-cause analysis and perform these duties under a strict confidentiality agreement required by BTS. WMATA's Chief Operating Officer reviews and accepts the decisions on the preventive safety actions, provides oversight and directs the implementation of approved preventative safety actions, and tracks the approved preventive safety actions through implementation. WMATA provides feedback on implemented preventive measures to employees, and the information is shared organization-wide through quarterly newsletters. BTS also contacts the reporting employee directly to provide an update on their report and produces an annual report describing the status and activities that have occurred as a result of the close call reporting program. BTS also follows up by producing special reports on single topic issues, as needed.

Currently, only L689, L922, and their frontline supervisors are eligible to report through C<sup>3</sup>RS for protection from discipline. The agency is in the process of expanding the program to all WMATA employees.

There are also rail- and bus-specific conditions when a reporting employee is not protected from discipline, which are defined in the MOU. The conditions related to rail include station overruns of more than one door leaf, exceeding the limits of an absolute or permissive block, red signal violations, wrong side door opening, and observed violations. Other exceptions related to bus include an operator's failure to follow proper vehicle securement procedures that result in a rollaway bus.

**Table 4. Steps in WMATA’s C3RS Reporting Process**

Step		Responsible Party
1	Identify an unsafe event or condition, initiate and then complete a close call report.	Employee(s)
	Employees can use an 800-telephone number to initiate a close call and fill out a report online within the 24-hour deadline to complete the process. Employees also have the option of completing their reports entirely using an 800-telephone number within the required timeframes.	
2	Enter close call report in tracking system	BTS
	a. Confirm eligibility (see section 7.1, criteria for close call report acceptance).	
	b. Provide confirmation receipt to employee. c. Provide feedback to reporting employee(s) if report is rejected.	
3	BTS will interview all reporting employees to collect additional details about the reported close call event or unsafe condition. If it meets acceptance criteria, report receives final acceptance.	BTS
4	Analyze individual close call report for preliminary root causes and BTS multiple reports for emerging trends and new sources of risk.	BTS
	Produce summary of report based on the collected data and forward to the Peer Review Team (PRT) for analysis.	
5	Meet at regular intervals to:	PRT or WMATA COO and/or CSO as appropriate
	a. Review BTS recommendation on preliminary root causes of reported close call incidents. Analyze summarized data from multiple reports;	
	b. Identify new sources of emerging trends and new types of safety critical risks;	
	c. Assess the association between emerging patterns or trends in close calls, relate those to preventive safety actions to be taken by WMATA, and approve implementation strategies. Management representatives on the PRT are empowered to approve preventive safety actions. If the PRT reaches an impasse or recommends actions that require significant additional resources or executive level actions, PRT will refer those actions to the Chief Operating Officer (COO) or Chief Safety Officer (CSO) as appropriate for approval. Actions approved by the PRT do not supersede corrective actions already established to address Federal Transit Administration, National Transportation Safety Board, or other external party requirements.	
	d. Review and discuss a summary report comprised of the individual close call reports generated from the Close Call Safety Reporting System, emerging trends, identified root causes, and approved (or recommended based on the criteria in Step 5c. above) preventive safety actions;	
e. Review and discuss all reports prior to their distribution.		
6	Review and accept individual WMATA decisions on preventive safety actions as needed based on Step 5c.	WMATA COO and/or CSO
7	Provide oversight and direct the implementation of approved preventive safety actions.	WMATA COO and CSO
8	Track preventive safety actions taken in response to close call events.	WMATA COO and CSO
9	Make feedback available to employees on preventive safety actions and safety outcomes resulting from their close call reports, including a quarterly status report (WMATA/L689/L922) and individual outreach to reporters (BTS).	WMATA/L689 /L922 BTS
10	Write an annual report describing the status of the project, any modifications made, and lessons learned to date; report on reporting activity; describe emerging trends and recommended solutions; distribute and post on a Confidential Close Call Transit Safety Reporting System website.	BTS
11	Write Special Reports on single topic issues, as needed. Distribute to all participants and post on the BTS Close Call website.	BTS
12	Develop and continue to improve reporting, tracking and preventive safety action monitoring systems.	WMATA, BTS

## Training

WMATA promotes its C<sup>3</sup>RS program through ongoing training, brochures, worksite banners, videos, and quarterly newsletters. New employees are first introduced to the C<sup>3</sup>RS program in new-hire training, which includes a discussion on what a close call is and why it is important to report them. WMATA has developed training that is tailored specifically to shop stewards to encourage safety reporting and remove the negative snitching connotation associated with identifying a safety issue. WMATA also has a *Quick Guide for Rail and Bus Transit Operations* that outlines the necessary information a WMATA employee needs to understand and report a close call event, as shown in Figure 50.

**www.closecall.bts.gov • 1-888-568-2377**

Reports must be started within **16 hours** of the event and finished within **24 hours** of the event. Completing a close call report takes approximately **30 minutes**.

**GETTING READY**

- If you are unsure of your eligibility for protection from discipline, refer to *WMATA Close Call Reporting: eSubmit Manual* or call **1-888-568-2377**.
- If you have submitted a close call report before, have your 4-digit personal code ready.
- Make sure any supporting documents or images that you would like to include with your report have been uploaded to your computer.
- If you have to stop your report at any time, you can save your report to finish later. However, all close call reports must be finished within 24 hours of the event.

**STARTING THE CLOSE CALL REPORT**

1. Go to [www.closecall.bts.gov](http://www.closecall.bts.gov).
2. Click **Report a Close Call**.
3. Read the Pledge of Confidentiality and Burden Statement, and check the box. Click Continue.
4. Enter your WMATA employee ID.
5. Enter your 4-digit personal code.

*Note:* If you are using eSubmit for the first time, you are prompted to create a 4-digit personal code. Save your personal code for future reporting.

**COMPLETING THE CLOSE CALL REPORT**

1. Enter the date and time of the event.
2. Complete the **Reporting Employee** page.
3. Give information on any co-workers who may be eligible for protection from discipline on the **Immediate Co-Workers** page.
4. Complete the **Incident Details** page with as much information as possible.
5. Describe your past 72 hours before the incident on the **Work/Sleep History** page.
6. Write what happened during the close call event on the **Incident Description** page.
7. Upload any supporting documents or images to your report in the **Attachments** section of the **Incident Description** page.
8. Review and edit your report on the **Review Your Report** page.
9. Print out a copy of your report for your records.
9. Click **Submit Report**.
10. Write down your access code, as it cannot be sent out again for security reasons. Your access code is used to retrieve your saved report and/or submit additional supporting documents and images.

**What is a close call?**

A **close call** is an unsafe event that could have resulted in an accident but did not.




Figure 50. Confidential Close Call Reporting Quick Guide for Rail and Bus Transit Operations, WMATA

C<sup>3</sup>RS program training involves educating employees about the program, how to use the program, and an overview of reported concerns and corrective actions taken in response to of those items. These trainings occur regularly in new bus operator and bus refresher classes, new rail operator and rail operator refresher classes, new station manager and station manager refresher classes, and regular safety meetings that occur throughout WMATA. Each safety meeting is used as an opportunity to promote the C<sup>3</sup>RS program and encourage employees to report. Close Call actions are reported at the monthly Executive Safety Committee meetings, which are attended by the GM, CSO, COO, and departmental Executive Safety Committee members.

### ***Stakeholder Input***

The C<sup>3</sup>RS program was established as a partnership among WMATA management, ATU Local 689, the International Brotherhood of Teamsters Local 922, and BTS to provide a platform for employees to voluntarily and confidentially report close call events without fear of discipline.

In the development of their program, WMATA reviewed existing programs, processes, and MOUs used by airlines (using NASA as a third party) and by New Jersey Transit, a partner in the early C<sup>3</sup>RS pilot program involving BTS. WMATA cited the confidentiality protection of BTS as a contributing factor in the decision to use BTS as a third-party administrator of their program.

BTS is authorized by law, 49 U.S.C. 111(c)(2), to collect transportation information for its programs, including CCDP. The BTS confidentiality statute, 49 U.S.C. 111(i), and CIPSEA protect the information BTS collects. These laws make sure that any identifying, sensitive, or proprietary information that BTS collects is not released to unauthorized persons or organizations (<https://ccdp.bts.gov/#confidentiality>).

WMATA tracks the number of reports submitted via BTS monthly reports. While WMATA has not set specific targets for volumes of reports, they have established a general goal of increasing reporting over time. With the understanding that feedback is imperative and will encourage future reporting, WMATA deliberately and regularly emphasizes the successes of the reporting program through quarterly newsletters and at regular safety meetings. With the confidential aspect of the reporting program at WMATA, it is important that the safety improvements and policy or procedural changes are emphasized organization-wide to ensure that the person who reported the hazard or safety issue is aware that a mitigation measure was put in place. WMATA representatives indicated that this feedback makes their employees feel valued and empowered, thus promoting additional future reports.

High-level managers have been assigned to participate on the Peer Review Teams, as described above, and are empowered to implement new safety actions without waiting for executive-level approval. This has led to a reduction in the time it takes to make necessary safety improvements, which, in turn, demonstrates the importance of the ESR system to reporters and the value of their reporting in improving system safety. Monthly Executive Safety Committee

meetings provide an additional avenue of program oversight and information dissemination through the presentation of actions that have been taken in response to close call reporting.

### ***Barriers to Implementation***

Despite promotion of the program by all partners, employee reporting remains relatively low, indicating room for continued improvement. Spreading information about the Close Call Program, including the non-punitive nature of the program, is a challenge identified by WMATA representatives. Even with various trainings, banners, newsletters, and conversations, WMATA representatives indicated they still come across employees who are unaware of the program. Therefore, barriers to implementation are mostly related to spreading word that the program exists and how to use it properly.

### ***Elements of Success***

Since the C<sup>3</sup>RS program was implemented at WMATA, there have been many documented preventive safety actions implemented to improve system safety, which resulted from employee safety reports:

- Improved communication methods for new-hire training
- Switch-movement communication improvements between rail operations control center and the roadway worker in charge
- Increased awareness of train operator procedures for entering the shop
- Establishment of a logbook for all company vehicles, including maintenance records, to reduce the likelihood of operating defective vehicles
- Bulk-head door seals improved on the 2000 and 3000 series rail car models to reduce water infiltration
- *Controller Handbook* updated to include a malfunctioning decision-making matrix
- A median was trimmed, and no parking signs were installed by a local jurisdiction to create more turn space for bus operators
- *Roadway Access Guide* revised in the *Right-of-Way Worker Protection Manual* to reflect accurate descriptions of risk throughout the system
- Training instituted on proper disposal of wastewater to deter Plant Maintenance employees from dumping into track beds
- Stinger System (power supply for rail vehicles located in maintenance and repair areas) decibel levels adjusted from a piercing sound to a comfortable level for shop workers
- Older bus shuttles replaced with newer buses to reduce obstruction issues for operators

## FTA SMS Pilot Participants

FTA is conducting an SMS Implementation Pilot Program that includes the establishment and implementation of ESR systems. The pilot includes CTA (discussed above) and three transit agencies in Maryland—Transit Services of Frederick County, Montgomery County Transit, and Charles County Transit. FTA established these pilots in an effort to provide SMS implementation guidance to the public transportation industry, including the importance of ESR in both the SMS safety risk management and safety assurance functions. FTA designed the program to demonstrate the benefits of confidential, non-punitive, near-miss reporting in improving transit safety by identifying the risks that exist within an agency and establishing formal approaches, including the development of corrective actions, to mitigate those risks.

### Transit Services of Frederick County

Transit Services of Frederick County (TSFC) provides local and commuter bus service and demand-response paratransit services in Frederick County. The concept of SMS was introduced to all TSFC staff in September 2018. In November 2019, TSFC released the first version of their PTASP, in which their Safety Management Policy Statement delineates TSFC's commitment to:

- Establish and operate hazard identification and analysis, and safety risk evaluation activities, including an ESR system as a fundamental source for safety concerns and hazard identification, in order to mitigate or eliminate the safety risks of the consequences of hazards resulting from our operations or activities to a point which is consistent with our acceptable level of safety performance.
- Ensure that no punitive or retaliatory action will be taken against any employee who discloses a safety concern through the ESR system, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures.

All reported hazards evaluated by the Safety Committee, which consists of the Chief Safety Officer/SMS Manager, Assistant Director of Operations, an operations manager, a representative from dispatch, a representative from fixed-route, a representative from paratransit, and a representative of County Risk Management. From the inception of the PTASP, hazard reports and mitigations are shared as a permanent agenda item in all monthly driver meetings and biannual all-staff meetings.

The Safety Management Policy included in the agency's PTASP is dedicated to the ESR system. In the policy, employees are strongly encouraged to report all safety hazards inside and outside facilities and vehicles and on the road. All hazard reports are to be tracked electronically on the Hazard Log spreadsheet and reviewed daily by the CSO. Reports can be submitted in person to a dispatcher, supervisor, manager, or director. Safety hazard reports can also be submitted anonymously via a locked comment box in the driver area or via email to [TransitSafety@FrederickCountyMD.gov](mailto:TransitSafety@FrederickCountyMD.gov). TSFC's CSO is responsible for investigating the hazards

and their potential consequence(s), assessing safety risk, and determining how to mitigate the risk(s) in the future.

Safety hazard reports are addressed at bi-monthly Safety Committee meetings, and findings are published immediately following mitigation actions. If employees who reported the hazard identify themselves, direct feedback regarding the mitigation is provided.

To encourage all hazard reporting, employees who self-report hazards and/or close calls due to their own errors in good faith are protected from disciplinary action. TSFC defines that disciplinary action could result if the hazard report investigation reveals that “the employee willfully participated in or conducted a/an illegal act, gross negligence or deliberate or willful disregard of regulations or procedures, including reporting to work under the influence of controlled substances, physical assault of a coworker or passenger, theft of County property, unreported safety events, unreported collisions, and unreported passenger injuries or fatalities.”

No specific training is dedicated to the ESR system at TSFC, but the program is mentioned at onboarding and periodically at all-staff meetings. No costs related to the program have been identified by TSFC.

## **Montgomery County Transit**

Montgomery County Transit provides fixed-route, limited stop, and demand-response bus services to Montgomery County. Through their involvement in the FTA SMS Pilot program, it recently developed a PTASP, which is currently in the approval process with the Accountable Executive and the Montgomery County Council. The plan details the ESR system, which is inclusive of hazard identification and analysis, risk assessment, and mitigation. The agency ensures that the ESR system is non-punitive and that no retaliatory action will be taken against employees that disclose safety concerns. Punitive action may be taken if the hazard investigation reveals an illegal act, gross negligence, a deliberate act, or a willful disregard for regulations or procedures.

FTA representatives introduced the idea of SMS to union representatives in 2016 as part of the FTA SMS Pilot program. The local union is supporting the PTASP and the ESR system, although there is no specific language in the current CBA.

Montgomery County Transit employees can report safety hazards in several ways, including:

- Radio transmission to central communications when employees are on the road, followed by formal documentation and submission of the concern on an ESR form by the end of the business day
- Directly to any supervisor, manager, or desk coordinator using the ESR form
- Anonymously by placing the ESR form and in a locked comment box in the driver area

The agency has established processes to identify hazards and associated consequences that will include the use of data collected and reported to management through:

- ESR form
- Pre- and post-trip vehicle condition reports
- Routine management observations, such as regular ride checks
- Monthly safety committee and fleet maintenance meetings
- Accident and incident reports
- Maintenance reports
- System inspections

Hazards are also identified through outside sources including passenger feedback, the County 311 program,<sup>130</sup> public forums, and the Transit Advisory Group (TAG), which consists of riders, organization members, and community leaders.

Although the ESR system is not yet in place, once established, risk will be established through a defined procedure using a risk assessment matrix for decision-making that accounts for probability and severity of identified hazards. Mitigation measures will subsequently be implemented until risk is reduced to an acceptable level. All reported hazards and mitigation measures will be detailed and tracked using Trapeze software. Montgomery County Transit will also track fatalities, injuries, safety events, and system reliability as performance metrics in terms of both nominal and rate per mile traveled.

The agency is also dedicated to providing direct feedback to the reporting employee when the hazard has been mitigated. Mitigation measures will also be announced at monthly Safety Committee meetings and reported to depot employees using the safety board. Additionally, the agency requires that implemented mitigation measures are monitored for effectiveness and unexpected consequences to ensure that the mitigation does not create a hazard.

### **Charles County VanGO**

Charles County VanGO provides public bus and specialized ADA demand-response services throughout Charles County through contracted services with MV Transportation. The first version of Charles County's PTASP was issued in July 2018 and includes the agency's Safety Management Policy, which details their commitment to:

- Provide appropriate management involvement and necessary resources to establish an effective ESR system that encourages employees to report unsafe work conditions, hazards, or at-risk behavior to management
- Identify hazardous working conditions and analyze data from the ESR system to develop subsequent processes and procedures to mitigate safety risks to appropriate levels of acceptance

- Ensure that no punitive action will be taken against employees who disclose safety concerns, unless that disclosure indicates an illegal act, gross negligence, or deliberate disregard for regulations or procedures

VanGO employees are encouraged to express safety concerns during safety meetings, individually to supervisors, or in writing without threat of disciplinary action. However, disciplinary action could result if the condition reported reveals the employee's willful violation of motor vehicle laws or safety policies adopted by the contractor. Internal communication consists of *ad hoc* and regularly established activities designed to communicate and reinforce SMS policy, including reported hazards and near-miss incidents.

When an employee becomes aware of a hazard, they must submit a report within eight business hours of the end of their shift using an incident form or through direct notification to a supervisor/ manager. Supervision/management is required to file a report using the incident report form or other means as deemed appropriate. In the event VanGO's contractor is unable to mitigate the risk alone, ESR reports may be forwarded to the County for follow-up.

Safety/security information is reviewed to determine if additional methods are necessary to identify threats and vulnerabilities. This review includes a formal three-phase approach that includes a review of equipment preparedness, employee proficiency, and agency effectiveness. Using a risk assessment matrix, resolutions are determined, and corrective actions are subsequently taken.

VanGO's Safety Assurance process establishes the activities required to conduct investigations of safety events, including the identification of causal factors, and to monitor information reported through the ESR system. In a causal factor investigation, evidence and additional information are recorded and analyzed to determine root causes and preventive strategies. Contractor management will assist vehicle operations and maintenance departments with monitoring safety objectives and targets, ESR, and reporting details at weekly staff meetings and monthly safety meetings. Once data from all safety-related activity are reviewed, including ESR reported activities, management and/or supervisors will communicate the appropriate information to all employees in the organization.

No training has been developed specifically for the ESR system. Additionally, no costs have been identified for the establishment and management of the ESR system. As the program matures, Charles County VanGO will track the hazards reported to determine effectiveness of the program.

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## Appendix B – Initial Survey Instrument and Interview Script

### Initial Survey Instrument

#### *Description of Non-Punitive Reporting System*

1. Please describe your agency's non-punitive reporting system, including the method(s) by which reporting can occur.
2. How long has your system been in place? Has the level of reporting increased as the system matured?
3. Do you utilize a third party to manage the system and collect data? If so, please identify that third party.
4. Is reporting considered confidential? If yes, please define confidential reporting as reflected in your policies.
5. Can safety reports be made anonymously?
6. Have you encountered any circumstances where safety reporting system data were requested through the legal discovery process or via an open records request?
7. How do you define the areas of risk, including near misses or close calls, that may be/could be reported?
8. Can non-agency employees, including contractors or the general public, report areas of risk? If so, how do they report?

#### *Stakeholder Input during the Design and Implementation Phases*

1. Describe the role of your collective bargaining unit or transit agency personnel in the original design and implementation phases of your system.
2. Do you provide the opportunity for employees to provide input on the safety reporting system? If so, what methods do you use? Based on that input, is the reporting system favorably viewed?
3. Do you utilize employee surveys in an effort to improve the effectiveness of the system?

#### *Training*

1. Describe the training provided to transit agency personnel for reporting.
2. Do supervisors and front-line employees receive the same training, or is training tailored by employment position?
3. Do you provide any training to others, in addition to agency personnel (e.g. contractors)?

#### *Policies and/or Procedures Established by the Transit Agency*

1. What policies and/or procedures have been established that address reporting, follow-up, data collection, punitive policies, areas of immediate safety risks, etc.?
2. Do your policies include a distinction between what is reportable through non-punitive reporting and what is considered negligent or illegal actions requiring discipline? (e.g. alcohol consumption prior to shift)
3. May the research team have a copy of any related policies and/or procedures?

### *Reporting Practices*

1. How are agency leaders (operations, maintenance, safety, human resources, agency management) notified that a report has been made?
2. Who has access to the reports that have been submitted?
3. Who is responsible for reviewing and taking action based on the information provided?
4. After a report has been made, what are the steps that follow?
5. Is there a pre-established review team, inclusive of all departments (i.e. planning, maintenance, etc.), that reviews the data?
6. How do transit employees, contractors, and the general public (as applicable) report areas of risk, including near misses and close calls?

### *State or Local Guidance or Regulations Related to Non-Punitive Safety Reporting*

1. Are there any recommended practices, guidance documents, laws, or regulations that you have utilized in the development, establishment, and management of your reporting system? This would include any laws associated with data protections.
2. Are you familiar with, and have you utilized as a resource FTA's ongoing Non-Punitive Employee Reporting System pilots in the development, implementation, and management of your system?
3. What specific policies, procedures, or practices did you adopt that are being utilized by FTA's ongoing Non-Punitive Employee Reporting System pilot locations?
4. Did you find the resources from these FTA pilot locations to be helpful in the implementation of your system? If yes, please describe.

### *Cost Information*

1. Please describe any costs that are directly associated with the system. This could include the costs of a third-party management resource, any internal personnel that have been assigned to manage the program, including the third party administrator (if applicable), training, or other expenses that are associated with the ongoing management and operation of the system.
2. Have you calculated or estimated a return on investment (ROI) associated with the system? If so, please describe the indicators used in the calculations and associated ROI outcomes.

### *Effectiveness of Practices and Measures*

1. Do you have performance measures to track the efficacy of your system? If so, what are the measures used?
2. If ineffectiveness is identified, what steps are taken to improve the effectiveness of the system?
3. Do you have pre-/post-implementation data to determine the success of your program? If so, what are the measures used to determine the efficacy of the system?
4. Do you trend pre/post-incident rates, claims, repair expenditures, or other expenditures that are related to safety events?

### *Data Collection and Analysis*

1. If analyses/reviews are conducted, how often are they conducted (e.g. monthly, quarterly, or annually)?

### *Post-Reporting Follow-Up Activities*

1. Please describe your post-reporting follow-up procedures.
2. Do reporters receive a confirmation that their report has been received?
3. Do reporters receive communication about action taken to correct the issue that was reported?
4. Does the employee's supervisor receive notification that the employee has made the report?
5. How are responses and/or corrective actions based on the reports prioritized?
6. How are investigations performed?
7. Who is responsible for safety report investigations?
8. How and to whom are investigation findings disseminated?
9. Have any of the reports led to policy or procedural modifications? – tell us about any success stories you have to share.
10. May the research team have a copy of any related policies and/or procedures, sample reports and any data/metric established during these processes?

## **Interview Script (Expanded Survey Questionnaire)**

### *Description of Non-Punitive Reporting System*

1. Please describe your agency's non-punitive reporting system, including the method(s) by which reporting can occur.
2. How long has your system been in place? Has the level of reporting increased as the system matured?
3. Do you use a third party to manage the system and collect data?
4. Describe the role of your labor union in the development and implementation of the system.
5. How do you define the areas of risk, including near-misses or close calls that may be/could be reported?
6. Do you limit what can/should be reported or do you take any input related to areas of risk/risky behaviors or other elements that introduce hazards in the system?
7. Can non-agency employees, including contractors or the general public, report areas of risk?
8. How do they report?
9. Is reporting considered confidential? If yes, please define confidential reporting as reflected in your policies.
10. Can safety reports be made anonymously?
11. Have you encountered any circumstances where safety reporting system data were requested through the legal discovery process or via an open records requests?

### *Stakeholder Input during the Design and Implementation Phases*

1. Describe the role of your collective bargaining unit or transit agency personnel in the original design and implementation phases of your system.
2. Do you use employee surveys in an effort to improve the effectiveness of the system?
3. Have you used surveys or other methods to determine the overall acceptance of the program by your employees? If so, is the reporting system favorably viewed?

### *Training*

1. Describe the training provided to transit agency personnel for reporting.
2. Do supervisors and frontline employees receive the same training, or is training tailored by employment position?
3. Do you provide any training to others, in addition to agency personnel (e.g. contractors)?

### *Policies and/or Procedures Established by the Transit Agency*

1. What policies and/or procedures have been established that address reporting, follow-up, data collection, punitive policies, areas of immediate safety risks, etc.?

2. Do your policies include a distinction between what is reportable through non-punitive reporting and what is considered negligent or illegal actions requiring discipline? (e.g. alcohol consumption prior to shift)
3. May the research team have a copy of any related policies and/or procedures?

### *Reporting Practices*

1. How do transit employees, contractors, and the general public (as applicable) report areas of risk, including near-misses and close calls?
2. How are agency leaders (operations, maintenance, safety, human resources, agency management) notified that a report has been made?
3. Who has access to the reports that have been submitted?
4. Who is responsible for reviewing and taking action based on the information provided?
5. After a report has been made, what are the steps that follow?
6. Is there a pre-established review team, inclusive of all departments (i.e. planning, maintenance, etc.), that reviews the data?

### *State or Local Guidance or Regulations Related to Non-Punitive Safety Reporting*

1. Are there any recommended practices, guidance documents, laws, or regulations that you have used in the development, establishment, and management of your reporting system?
2. Do you have any state or local regulations/laws that limit what can be requested through an open records request?
3. Are you familiar with, and have you used as a resource FTA's ongoing SMS Pilot Program in the development, implementation, and management of your system?
4. What specific policies, procedures, or practices did you adopt that are being used by FTA's SMS Pilot locations?
5. Did you find the resources from these FTA pilot locations to be helpful in the implementation of your system? If yes, please describe.

### *Cost Information*

1. Please describe any costs that are directly associated with the system. This could include the costs of a third party management resource, any internal personnel that have been assigned to manage the program, including the third party administrator (if applicable), training, or other expenses that are associated with the ongoing management and operation of the system.
2. Have you calculated or estimated a return on investment (ROI) associated with the system? If so, please describe the indicators used in the calculations and associated ROI outcomes.

### *Effectiveness of Practices and Measures*

1. Do you track the effectiveness of the system?

2. If ineffectiveness is identified, what steps are taken to improve the effectiveness of the system?
3. Do you have performance measures to track the efficacy of your system?
4. Do you have pre-/post-implementation data to determine the success of your program based on these performance metrics?
5. If so, what are the measures used to determine the efficacy of the system?
6. Do you trend pre/post-incident rates, claims, repair expenditures, or other expenditures that are related to safety events?

#### *Data Collection and Analysis*

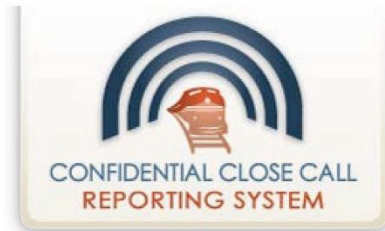
1. If you use a third party, how are data collected and shared with your transit agency?
2. Please identify the third party that is used.
3. If you are directly responsible for the collection of near-miss/close call data, please describe the data collection process and the associated analyses that occur.
4. If analyses/reviews are conducted, how often are they conducted (e.g. monthly, quarterly, or annually)?

#### *Post-Reporting Follow-Up Activities*

1. Please describe your post-reporting follow-up.
2. Do reporters receive a confirmation that their report has been received?
3. Do reporters receive communication about action taken to correct the issue that was reported?
4. Does the employee's supervisor receive notification that the employee has made the report?
5. How are responses and/or corrective actions based on the reports prioritized?
6. How are investigations performed?
7. Who is responsible for safety report investigations?
8. How and to whom are investigation findings disseminated?
9. Have any of the reports led to policy or procedural modifications?

# Appendix C – Example C<sup>3</sup>RS and BTS Safety Reporting MOUs

New Jersey Transit



## CONFIDENTIAL CLOSE CALL REPORTING SYSTEM IMPLEMENTING MEMORANDUM OF UNDERSTANDING (C<sup>3</sup>RS/IMOU) NEW JERSEY TRANSIT

OCTOBER 10, 2014



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### **Article 1. Parties to C<sup>3</sup>RS/IMOU (Parties)**

- A. **Federal Railroad Administration (FRA):** an administration in the Department of Transportation charged with carrying out all railroad safety laws of the United States per 49 United States Code (USC) Section 103 and 49 Code of Federal Regulations (CFR) §1.49.
- B. **New Jersey Transit (NJT):** a common carrier railroad.
- C. **SMART United Transportation Union (SMART-UTU):** the duly recognized collective bargaining representative of the crafts of conductors, assistant conductors, and yardmasters working within the boundaries of the Confidential Close Call Reporting Program.
- D. **American Train Dispatchers Association (ATDA):** the duly recognized collective bargaining representative of the craft of train dispatchers working within the boundaries of the Confidential Close Call Reporting Program.
- E. **Brotherhood of Locomotive Engineers and Trainmen (BLET):** the duly recognized collective bargaining representative of the crafts of NJT locomotive engineers and assistant engineers working within the boundaries of the Confidential Close Call Reporting Program.

### **Article 2. Purpose**

The Parties are voluntarily entering into this C<sup>3</sup>RS/IMOU with the intent to improve the safety of railroad operations

The objectives for close call reporting are:

- The accumulation of confidential data on currently unreported or underreported unsafe events,
- Event analysis of reported data by Peer Review Teams (PRT), if railroad is large enough and chooses to support its own PRT,
- Identification of corrective actions by the Parties to remedy identified safety hazards;
- Provision of assistance by FRA in its safety oversight role, and
- Publication of general trends and statistics by government agencies.

### **Article 3. Boundaries**

The boundaries of the C<sup>3</sup>RS program is the territory defined as the entire NJT system; consisting of all trackage owned or controlled by NJT, including the Southern Tier and Pascack Valley Line.

### **Article 3.1 Applicability**

The C<sup>3</sup>RS/IMOU will apply to all Parties employed by NJT as described in Article 1, governed by those signatory to this IMOU, including employees in training or probationary status. Employees must submit an accepted C<sup>3</sup>RS report, subject to conditions specified in Article 7.1 of this C<sup>3</sup>RS/IMOU, to have protection from discipline from NJT and/or FRA civil enforcement. Additionally, NJT will be exempt from FRA civil enforcement under the same terms as these individuals for accepted C<sup>3</sup>RS reports. This C<sup>3</sup>RS/IMOU does not alter or modify any Collective Bargaining Agreement.

### **Article 3.2 Other Covered Employees Tenant/Host Operations**

C<sup>3</sup>RS reports may be accepted from employees when they are operating within the boundaries of this IMOU, or when operating on another railroad that has an approved C<sup>3</sup>RS IMOU in effect. With respect to tenant/host C<sup>3</sup>RS operations, the host railroad's IMOU will govern tenant operations.

### **Article 4. Definitions**

**“Adverse Consequences”** The negative impacts that may result from a human error or system failure.

**“Close Call”** a reported close call that is an opportunity to improve safety practices in a situation or incident that has a potential for more serious *adverse consequences*. The reported close call represents a situation in which an ongoing sequence of events was stopped (except as outlined in Article 6.4) from developing further, preventing the occurrence of potentially serious safety-related consequences. Personal injuries do not fall into the category of a close call, and will continue to be reported and handled in accordance with the current NJT rules and FRA regulations, or any subsequent revisions to NJT rules and/or FRA regulations.

**“Consensus”** is the voluntary agreement of all representatives.

**“Corrective Actions”** action taken by NJT in response to the PRT's recommendations concerning emerging trends and reported safety events.

**“Discipline”** any NJT action that would result in a materially adverse employment action like a suspension, termination, demotion, written warnings, written counseling, etc.

**“Event Recorder”** a device, designed to resist tampering, that monitors and records data on train movements, direction of motion, occupancy, record of protection, time, distance, video, and voice recordings, etc.

**“Electronic Train Monitoring Devices”** a technological device or methodology for remotely identifying abnormal events, such as engineer induced emergency application of brakes.

**“FRA-certified inspector”** any individual authorized by the Secretary of Transportation to enter, inspect and examine lands, buildings, and equipment on railroad property.

**“Hazardous material”** a commodity designated as a hazardous material by 49 CFR Part 172.

**“Immediate Co-Worker”** a member of the same train crew or work group. The determination, however, is not to be based merely on proximity, but on functionality as well. An engineer, a passenger conductor, and assistant conductors working the same train would be immediate co-workers. A train crew conducting switching operations but separated from each other by distance, cars, etc., so that they are only in radio contact (i.e., not visual contact) are members of the same train crew. Utility employees are immediate co-workers while attached to a train crew. Yardmasters or employees from other crafts are immediate co-workers when they are directly or indirectly involved in an accepted reported event.

**“Need to Know”** government employees and contractors may have access to information only if it is necessary for close call program management and programmatic evaluation and analysis. This “need to know” will be administered by the National Aeronautical Space Administration (NASA) and permission granted by the NASA Program manager.

**“Real-Time Observation”** NJT employee observations or testing conducted by management, supervisor, or an FRA-certified inspector.

**“Train Accident Reporting Threshold”** as defined in 49 CFR Part 225 in regard to monetary reporting threshold.

#### **Article 5. Confidentiality**

NASA shall act as custodian of the data reported by NJT employee(s) under this C<sup>3</sup>RS/IMOU and shall protect the confidentiality of this information through its own governance.

After all relevant data about a reported close call event, including the C<sup>3</sup>RS report and all other information collected by NASA that is relevant to the reported event, have been compiled into a unified document, NASA will develop a de-identified document for further analysis by the Peer Review Team (PRT). NASA will de-identify this record so that the employee(s)’s identity, any third party reference, including anyone mentioned in the original C<sup>3</sup>RS report, can no longer be determined through direct or indirect means.

NASA shall protect the following information from disclosure when provided in a close call report:

1. The employee close call report form and the content of that form,
2. The name of the employee who submits a close call report,

3. The name of any other employee mentioned in the close call report,
4. The name of the railroad involved in the close call report, and
5. Information that would make it obvious that only a few (fewer than three), easily-identifiable people could have made the close call report such as exact location and time of a close call, or description of specific, rarely used equipment models.
6. If NASA is unable to protect the confidentiality of the reporter, the report will not be forwarded to the PRT.

The confidentiality of the information collected during this Program will be preserved beyond the cancellation and/or end of this Program.

#### **Article 5.1 Access to Confidential Data**

In the interest of providing the best measures for maintaining the confidentiality of the data, all internal NASA program staff will be granted access to confidential internal use data on a “need to know” basis and for the purposes of completing their work assignments. Internal Program staff includes NASA federal employees and NASA agents. For this Program, NASA agents may include NASA contractors assigned to this Program. If the railroad chooses to use a PRT, the PRT assigned to this Program will have access to de-identified reports and PRT work products.

#### **Article 6. Reporting Procedures**

When an employee of NJT covered by this C<sup>3</sup>RS/IMOU, observes a safety problem or experiences a close call event, he or she should report the problem or event and describe it in detail to NASA. NASA has developed a close call report form that requests information about the date, time, location, contributing factors, actions taken, and potential consequences of an event, along with any other information necessary to fully describe the event or perceived safety problem. NASA has a process for electronic submission or download of report forms at: <http://c3rs.arc.nasa.gov/report/electronic.html>.

The close call form will be evaluated and de-identified by NASA. The de-identified information will be evaluated by the PRT. A separate close call report form is required for each safety problem or close call event experienced during a tour of duty. The employee will complete the report form, either paper or electronic, and submit it in accordance with the instructions on the form. NASA will mail a receipt to the employee.

The reporting of close call events is not intended to circumvent nor meant to be a substitute for any existing NJT safety programs or reporting procedures. Rather, it is intended to be an additional tool for improving safety.

NJT will make forms available at work locations.

### **Article 6.1 Criteria for Close Call Report Acceptance**

Reports will be accepted for any condition or event that is perceived as potentially resulting in adverse consequences. Any concern about one's own safety or someone else's safety at work should be reported.

Each close call report must contain sufficiently detailed information about an event so NASA can evaluate it. An interviewer may call the employee(s) to obtain more information about the event. If in doubt, the interviewer will err on the side of accepting the report. NASA will conduct the first screening and the PRT the second screening.

The following types of reports shall be rejected during the initial screening process:

1. Any type of FRA reportable train accident/incident,
2. Any reported event that caused or is alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event,
3. Acts of sabotage and other willful acts or criminal offenses including use of alcohol and prohibited controlled substances,
4. An event resulting in an identifiable release of a hazardous material.

The following types of reports may be rejected during the initial screening process:

1. Reports that do not include sufficient information when the reporting employee(s) does not accept a follow-up call when contacted,
2. Reports unrelated to railroad safety,
3. Personal grievances, such as a rejected time slip or perception of unfairness by a supervisor.

### **Article 6.2 Conditions Under Which a Reporting Employee is not Protected from Railroad Discipline and/or Revocation of Certification/Qualification and Other FRA Enforcement**

NJT employees included in this C<sup>3</sup>RS/IMOU receive no protection from discipline, and FRA enforcement action when one or more of the following conditions occur:

1. The employee's action or lack of action was intended to damage NJT or another entity's operations or equipment or to injure other individuals, or intentionally placed others in danger (for example, sabotage),
2. The employee's action or lack of action involved a criminal offense,

3. The employee's behavior involved substance abuse or inappropriate use of controlled substances,
4. The report is rejected in accordance with Article 6.1,
5. The event resulted in any type of FRA reportable train accident/incident,
6. The event caused or is alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event,
7. The event resulted in an identifiable release of a hazardous material,
8. The event is a real time observation by management, supervisor, or an FRA-certified inspector, or
9. When a passenger is taken to the yard or left on train at final stop.

Disregarded station stops and doors opening on the wrong side of the train when any one of the following occur:

1. Customer complaint within 24 hours of incident/next business day if holiday or weekend,
2. Media report of incident within two business days.
3. Not reporting incident immediately to Train Dispatcher.

FRA will also afford the same protection from enforcement action to NJT, as that afforded to an NJT employee covered by this IMOU, for any incident for which an accepted close call report is filed. Likewise, if an employee report falls under one of the exceptions listed in Article 6.2 and the employee is not afforded protection, NJT will also not receive protection from FRA enforcement action.

### **Article 6.3 Time Limits to File Report and Receive Protection from NJT Discipline and FRA Enforcement**

To receive protection from NJT discipline and/or FRA enforcement, an employee with knowledge of the incident must submit a written (either paper or electronic) close call report to NASA within three business days (Monday – Friday), of the event. For example, an event that occurs at 3:00 a.m. on a Tuesday must be reported by 11:59 p.m. of that Friday. If the event occurs on Saturday at 3:00 a.m. it must be reported by 11:59 p.m. on Wednesday. Saturday and Sunday or Federally observed holidays are not included in the calculation of business days.

If NASA determines the initial report contains insufficient information to determine acceptance, the report may receive provisional acceptance. Final eligibility for receipt

issuance will be determined when the NASA rail safety expert obtains more information from the employee. NASA may call the reporting employee for further information and the reporting employee is encouraged to provide information. If, based on evidence, the close call report is accepted as valid by NASA, a receipt is issued to the reporting employee via United States Postal Service.

Any record of such receipt will not be available in the NASA close calls reporting system. If an employee facing discipline has lost or misplaced the receipt, the reporting employee may request a verification letter from NASA. This letter will be provided whenever possible. However, there is no guarantee that NASA can provide a verification letter, since NASA does not store any identifying information about the employee who submitted the report.

#### **Article 6.4 Special Criteria for Known Event Reporting**

This article does not modify NJT's incident investigation or Alcohol and Drug Testing policy, or supersede any OSHA requirements. Employees involved will provide written statements of incident when requested. This article does not include or cover events that are part of real time observations by an NJT employee or operational testing conducted by management, supervisor, or an FRA-certified inspector.

Events below the FRA reporting threshold that do not involve an injury, but would require managerial notification and/or protection, shall be considered eligible close call events. To facilitate analysis of such events, an employee will provide notification of the event to NJT management without undue delay. A C<sup>3</sup>RS report will be completed and submitted to NASA within the time limits set forth in Article 6.3.

NJT agrees it will not initiate any discipline for an event reported and accepted by NASA as a close call.

NASA will provide a receipt for the close call report as proof of an accepted report. The employee must allow NJT to review the receipt, when requested.

#### **Article 7. Purpose for Protection from NJT Discipline and FRA Enforcement**

The main purpose of this close call reporting system is for the participating Parties to learn more about the safety risks they face. An important element of the Program is the shielding of employee(s) from NJT discipline and/or FRA enforcement potentially arising from events reported under this system. An additional concern is the need to also shield NJT from FRA enforcement potentially arising from events reported under this system.

Confidential close call reporting protects the identity of the person disclosing information. The PRT is able to use the information to learn about systemic problems and to educate all Parties. The reporting of close calls will foster an environment that enables the Parties involved to understand systemic failures and implement improvement opportunities.

**Article 7.1 Conditions under Which a Reporting Employee(s) is Protected from NJT Discipline and FRA Enforcement**

NJT employees included in this C<sup>3</sup>RS/IMOU who report close calls or who are involved in the reported event in accordance with Article 6 will be protected from discipline and/or decertification by NJT provided an appropriate FRA waiver has been granted.

FRA will not require NJT to revoke the certification of the employees if the event meets both of the following two conditions:

1. The employee's action or lack of action was not intended to cause damage and/or injury to NJT's operations, equipment, or personnel; and
2. The employee reports the close call event within the time limits set forth in Articles 6.3 and 6.4, and the report is accepted as provided in Article 6.1.

Employee protection from NJT discipline requires that the same above two conditions apply.

Employees who file an accepted close call report are protected from discipline and/or decertification by NJT and from other FRA enforcement arising from the retrospective discovery of events involving violations of operating practices involving the event reported. This includes the retrospective (as opposed to real-time) use or review of event recorder data.

All employees covered by this C<sup>3</sup>RS/IMOU that are involved in a close call event will be afforded the same protection as long as at least one immediate co-worker filed an accepted close call report.

NJT and FRA are prohibited from using any information contained in a close call report to pursue or defend any disciplinary or enforcement actions.

All parties to this IMOU understand that this data is also protected and must not be used for any purpose other than PRT analysis and development of corrective actions. Each of the PRT members will be trained on confidentiality and agree not to disclose or discuss close call case details outside PRT meetings.

*Note: If FRA grants the waiver petitions in question, copies of the FRA's decision letters will be attached to this IMOU and incorporated by reference.*

**Article 7.2 Conditions under Which NJT is protected from FRA Enforcement**

FRA will also afford the same protection from enforcement action to NJT, as that afforded to an NJT employee covered by this IMOU, for any incident for which an accepted close call report is filed. Likewise, if an employee report falls under one of the exceptions listed in Article 6.2 and the employee is not afforded protection, NJT will also not receive protection from FRA enforcement action.

### **Article 7.3 Conditions that are required for Real-Time Observations**

When an NJT manager or supervisor makes a real-time observation under article 6.1 the employee(s) must be informed of the observed/witnessed violation as soon as possible, but not to exceed two hours from the time of the observation/witness of event.

An event may also be considered a real-time observation upon notification by an observing FRA-certified inspector to the employee(s) and/or the railroad as soon as possible after observing a rules violation. The FRA-certified inspector will document the time, date, location, and a description of the rules violation observed on a FRA Inspection Report (6180.96 report). The FRA-certified inspector will provide a copy of the Inspection Report to the appropriate railroad officer preferably on the same day, but no later than 24 hours after observing the rules violation.

### **Article 8. How Employee(s) Notify NJT or FRA of Protection from Discipline or FRA Enforcement**

When NJT initiates an investigation of an unsafe event or condition and an employee(s) indicates that the event or condition has been reported in accordance with the C<sup>3</sup>RS/IMOU, the time limits for pursuing discipline will be put in abeyance if necessary, pending a confirmation receipt from NASA.

When a receipt is available for review it will be presented to the railroad manager. If the railroad manager is able to determine that the receipt is applicable to the event, the investigation will be closed.

If the Parties do not agree that the receipt is applicable to the event, the employee(s) will present a copy of the receipt to the PRT, who will then accept or reject the receipt as proof of an accepted report of the event in question. If the PRT accepts the receipt, the investigation will be closed.

If the PRT rejects the receipt, the railroad manager will be advised and the time limits for initiating disciplinary proceedings may commence. In such cases, neither party may use nor reference the close call report in the subsequent disciplinary proceedings.

Upon receiving notice of FRA civil enforcement for an event covered by an accepted close call report, the employee(s) will present the receipt to the FRA for assistance in resolving the notice consistent with this IMOU.

#### **Article 9. Use of Data**

All participants in this C<sup>3</sup>RS/IMOU agree to use the information they acquire only for positive purposes to improve railroad safety. This could include new or modified training, assessing risk and allocating resources to address those risks, and learning why these close calls are taking place.

#### **Article 10. Reserved**

#### **Article 11. Stakeholders**

The primary organizations that will be involved in the Program are:

- FRA's Office of Railroad Safety,
- NJT,
- NASA,
- SMART-UTU,
- SMART-UTU-Y,
- ATDA,
- BLET,
- Peer Review Team (PRT),
- Support Team.

#### **Article 12. Stakeholders' Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The rights, roles, and responsibilities set forth in this C<sup>3</sup>RS/IMOU apply only to participants in the C<sup>3</sup>RS Program pursuant to any IMOUs that are approved by the FRA. If the Program involves a waiver of any FRA rules, the Parties shall submit a waiver request under 49 CFR § 211.41. In granting the waiver request, the FRA Railroad Safety Board may impose conditions necessary to assure safety.

##### **Article 12.1 FRA's Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The FRA will oversee the scope and quality of the work. Experience gained from other modes has indicated that the willingness of persons to submit a close call report depends to a large degree on preserving the confidentiality of NJT, the reporting employee(s), and immediate co-workers named in those reports. FRA will not seek, and NASA will not release to FRA, any information that might reveal the identity of such persons, organizations, locations or events mentioned in close call reports.

Specific FRA responsibilities include the following activities:

- Fund the C<sup>3</sup>RS Program if Congress appropriates funds for the Program. The duration of the Program is dependent upon continued Congressional funding. As provided in Article 14, any party may terminate their participation in the Program at any time;

- FRA may assign personnel to assist the PRT to analyze and summarize emerging trends, as well as to recommend corrective actions;

**Article 12.2 NASA Responsibility in Support of the C<sup>3</sup>RS/IMOU**

NASA responsibility in support of the IMOU is to manage the close call reporting system and protect the confidentiality of the data. FRA will work with NASA to ensure its responsibilities outlined in Article 5 and 5.1 are fulfilled. NASA's responsibility to protect the confidential information as outlined in this IMOU will be governed by a separate Interagency Agreement (IA) between FRA and NASA providing for the development of a railroad safety reporting system. The performance of this IMOU is contingent upon the continuation of the IA between FRA and NASA.

**Article 12.3 NJT Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

NJT shall not have any access to nor seek any NASA data that might reveal the identity of employee(s) or individuals mentioned in a close call report. By participating in the C<sup>3</sup>RS Program, NJT will:

- Commit to the support and use of the close call reporting system at all levels of the organization,
- Consult on the high-level implementation plan with all NJT's Senior Managers,
- Ensure senior management and supervisors cannot preempt their respective representative's decision-making discretion for an event reported,
- Use the information collected from the close call Program for the purpose of improving safety. NJT agrees not to use the information reported for the purpose of disciplining or disqualification of employee(s) except for those circumstances covered in Article 6.1,
- Use the PRT recommended corrective actions to evaluate and implement corrective actions in a timely manner as recommended by a consensus of the PRT and the PRT Support Team,
- Develop a communications plan for sharing findings with its employee(s) in order to help achieve success in this Program.
- Fund labor representative's participation on the PRT at the rate of one basic day at the current governing rate of the crafts represented per day worked, or shall make whole the labor representative for lost earnings, whichever is greater. When needed, travel expenses will be reimbursed or paid by NJT.

**Article 12.4 Labor Union(s) Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

By participating in the C<sup>3</sup>RS Program, labor unions signatory to this IMOU shall have the following responsibilities:

- Commit to and promote use of the close call reporting system at all levels of the organization,
- Appoint representatives to participate on the PRT, and
- Participate on the PRT to analyze and summarize emerging trends as well as recommend corrective actions.

#### **Article 12.5 Peer Review Team's Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The PRT is a multi-stakeholder problem solving team that consists of subject matter experts from the crafts, managers, and FRA

The PRT will develop a handbook for PRT governance and succession planning. The PRT can change the handbook as conditions warrant.

The PRT may draw subject matter experts from each craft to assist in problem solving. Continuity of the PRT membership is essential for success.

NJT will determine the resources available for the PRT size and meeting time. Meeting frequency will be adjusted by the PRT as needed. Its primary responsibilities include:

Analyze close call event reports:

- Analyze each close call report after the identifying information has been removed and determine the root causes of the reported incidents,
- Generate and distribute feedback on close calls, emerging trends, and newly identified risks,
- Send proposed corrective action recommendations and/or presentations to management,
- Follow-up on the effectiveness of implemented corrective actions.

Identify and analyze multiple reports:

- Identify and analyze emerging patterns or trends in close calls, relate those to corrective actions taken by NJT, and advise and assist with the implementation of corrective actions,
- Review and discuss a summary report comprised of the individual close call reports, emerging trends, identified root causes, and suggested corrective actions. Assess the

association between emerging patterns or trends in close calls and relate those to corrective actions taken by NJT,

The PRT will function using, but not limited to the following guidelines:

- The PRT conducts business only when a quorum is present. A quorum is defined within the PRT handbook,
- The primary stakeholders on the PRT are encouraged to consult with their peers or industry experts for guidance on complex or sensitive matters – where more information is desired to make an informed decision. The use of subject matter experts is encouraged,
- The PRT will conduct its own event analysis driven by the NASA report,
- Each representative is empowered to offer possible sources of risk, error recovery mechanisms, and corrective actions. Diverse perspectives are expected and encouraged. The PRT's opinions reflect a collaborative decision-making process among all PRT representatives,
- The PRT makes its decisions using consensus when assigning root causes and proposing corrective actions. It does not require that all members believe that a particular decision is the best one. Instead, all representatives' positions are given a proper hearing and are addressed, and a decision is one that all can accept,
- In support of Article 3.2, PRT's involved with tenant/host operations agree to meet as often as needed and work collaboratively on cases that require corrective action measures by the host railroad. Both PRT's agree to function in the spirit of open dialogue, freely exchanging close call data in the interest of improving railroad safety on their respective railroads,
- If there is a dispute concerning the application of this IMOU, the Parties signatory to this C<sup>3</sup>RS/IMOU are encouraged to use interest based problem solving techniques to resolve the matter internally. PRT's may contact the FRA C<sup>3</sup>RS implementation team for assistance if the matter cannot be resolved internally,
- The PRT will protect the confidentiality of the reporting employee(s). The PRT will not disclose any information that would make it possible to identify the reporting employee(s) mentioned in the close call report to any person or entity. All Parties also agree to protect the confidentiality of any and all data, analysis, findings and recommendations related to this IMOU. The confidentiality of this information will survive in perpetuity.

#### **Article 12.6 PRT Support Team Roles and Responsibilities**

The PRT Support Team will consist of individuals from the NJT appointed representatives, as well as representatives from FRA and labor organizations when requested.

Their responsibilities will include:

- Support the PRT during implementation and provide continuing project oversight,
- Evaluate and implement corrective actions recommended by the PRT in a timely manner,
- Review PRT decisions and provide feedback to stakeholders,
- NJT's appointed representative on PRT Support Team will report corrective actions implemented to PRT or report why no action was taken. The NJT representative will also report on the measured effectiveness of corrective actions to PRT.

**Article 12.7 Reserved**

**Article 13. Modifications**

Modifications to this C<sup>3</sup>RS/IMOU may be proposed at any time during the period of performance by any party to the C<sup>3</sup>RS/IMOU, and shall become effective upon written approval by all parties.

**Article 14. Program Duration/Employee(s) Protections**

This C<sup>3</sup>RS/IMOU will be in effect until cancelled as outlined below. Cancellation of participation is subject to the following restrictions:

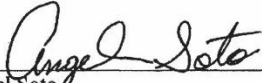
- Parties to this C<sup>3</sup>RS/IMOU may cancel their respective participation with a 45 day written notice,
- The termination or modification of the Program will not adversely affect anyone who acted in compliance with the terms of the Program in effect at the time of that action; i.e., if the C<sup>3</sup>RS/IMOU is terminated, all reports and investigations that were in progress will be handled under the provisions of the Program until they are completed. Employee(s) reporting under this Program will remain protected from NJT discipline and/or FRA enforcement for reported events,
- Should any party serve the appropriate cancellation notice, all Parties commit to meet within the 45-day period to seek resolution,
- The confidentiality provided by this agreement survives its cancellation,

**Article 15. Record Keeping**

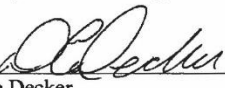
To ensure compliance, all records and documents relating to this Program, including any documentation from the PRT, shall be kept in a manner prescribed by NJT.

**Article 16. C<sup>3</sup>RS/IMOU Signatures**

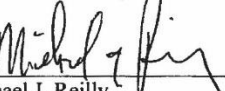
The Parties below approve this Implementing Memorandum of Agreement and the principles of the Confidential Close Call Reporting System.

  
\_\_\_\_\_  
Angel Soto  
Deputy General Manager Transportation, NJT

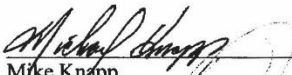
10-16-14  
Date

  
\_\_\_\_\_  
Dave Decker  
General Chairman, BRET

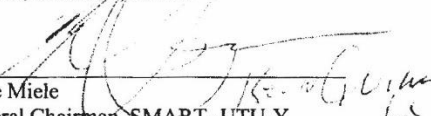
10/23/14  
Date

  
\_\_\_\_\_  
Michael J. Reilly  
General Chairman, SMART-UTU


10/22/14  
Date

  
\_\_\_\_\_  
Mike Knapp  
General Chairman, ATDA

10/20/14  
Date

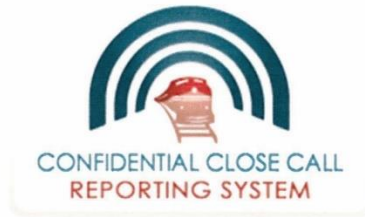
  
\_\_\_\_\_  
Mike Miele  
General Chairman, SMART-UTU-Y

10/18/14  
Date

  
\_\_\_\_\_  
Robert C. Lauby  
FRA Associate Administrator for Railroad Safety/  
Chief Safety Officer

10-27-14  
Date

# Southwest Pennsylvania Transportation Authority



## CONFIDENTIAL CLOSE CALL REPORTING SYSTEM IMPLEMENTING MEMORANDUM OF UNDERSTANDING SOUTHEAST PENNSYLVANIA TRANSPORTATION AUTHORITY

JUNE 22, 2016



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**Article 1. Parties to Confidential Close Call Reporting System Implementing Memorandum of Understanding (C<sup>3</sup>RS/IMOU) (Parties)**

- A. **Federal Railroad Administration (FRA):** an administration in the Department of Transportation charged with carrying out all railroad safety laws of the United States under 49 United States Code (USC) Section 103 and 49 Code of Federal Regulations (CFR) § 1.89.
- B. **Southeastern Pennsylvania Transportation Authority (SEPTA):** A Common Carrier Transportation Authority whose Regional Rail Division is a railroad that falls under the jurisdiction of the FRA and whose employees are represented by the two (2) unions described herein.
- C. **Brotherhood of Locomotive Engineers and Trainmen (BLET):** the duly recognized collective bargaining representative of the crafts of SEPTA locomotive engineers working within the boundaries of the Confidential Close Call Reporting C<sup>3</sup>RS Program (Program).
- D. **Transportation Division of SMART (Formerly UTU):** the duly recognized collective bargaining representative of the crafts of SEPTA conductors, assistant conductors, and assistant conductor trainees working within the boundaries of the Program.

**Article 2. Purpose**

The Parties are voluntarily entering into this C<sup>3</sup>RS/IMOU with the intent to improve the safety of railroad operations.

The objectives for close call reporting are:

- The accumulation of confidential data on currently unreported or underreported unsafe events;
- Event analysis of reported data by Peer Review Teams (PRT);
- Identification of corrective actions by the Parties to remedy identified safety hazards;
- Provision of assistance by FRA in its safety oversight role; and
- Publication of general trends and statistics by government agencies.

**Article 3. Boundaries of the Program**

The boundaries of the Program are anywhere SEPTA employees perform activities in support of SEPTA railroad operations.

### Article 3.1 Applicability

The C<sup>3</sup>RS/IMOU will apply to all SEPTA Regional Rail Division employees who are represented by the labor organizations that are described in Article 1 and are signatories to this C<sup>3</sup>RS/IMOU, including employees in training and/or probationary employees. Employees must submit an accepted C<sup>3</sup>RS report, subject to conditions in Article 7.1 of this C<sup>3</sup>RS/IMOU, to have protection from discipline from SEPTA and/or FRA civil enforcement. Additionally, SEPTA will be exempt from FRA civil enforcement under the same terms as these individuals for accepted C<sup>3</sup>RS reports. This C<sup>3</sup>RS/IMOU does not alter or modify any Collective Bargaining Agreement.

### Article 3.2 Other Covered Employees – Tenant Host Operations

C<sup>3</sup>RS reports may be accepted from employees when they are operating within the boundaries of this IMOU, or when operating on another railroad that has an approved C<sup>3</sup>RS IMOU in effect. With respect to tenant/host C<sup>3</sup>RS operations, the host railroad's IMOU will govern tenant operations.

### Article 4. Definitions

**Adverse Consequences** means the negative impacts that may result from a human error or system failure.

**Certification** means the qualification and certification of locomotive engineers under 49 CFR Part 240 and the qualification and certification of conductors under 49 CFR Part 242.

**Close Call** or a **Reported Close Call** is an opportunity to improve the safety of activities in support of SEPTA railroad operations in a situation or incident that has a potential for more serious *adverse consequences* to railroad safety. The reported close call represents a situation in which an ongoing sequence of events was stopped (except as outlined in Article 6.4) from developing further, preventing the occurrence of potentially serious safety-related consequences. Fatalities and personal injuries do not fall into the category of a close call, and will continue to be reported and handled under the current SEPTA rules and FRA regulations, or any subsequent revisions to SEPTA rules and/or FRA regulations.

**Consensus** is the voluntary agreement of all representatives.

**Corrective Action** is an action taken by SEPTA in response to the PRT's recommendations concerning emerging trends and reported safety events.

**Discipline** is any SEPTA action that would result in a materially adverse employment action like documented verbal conferences, written counseling, written warnings, suspension, termination, demotion, etc.

**Employee** means a SEPTA employee who is engaged in railroad operations and represented by the labor organizations that are signatories to this C<sup>3</sup>RS/IMOU.

**Event Recorder** is any device designed to resist tampering, that monitors and records data on employee activities, equipment operation, track occupancy, record of protection, time, distance, video, and voice recordings, etc.

**FRA Safety Inspector** means an FRA safety inspector or a state inspector participating in railroad safety investigative and surveillance activities under 49 C.F.R. Part 212, or any other official duly authorized by FRA.

**Hazardous material** is a commodity designated as a hazardous material by 49 CFR Part 172.

**Immediate Co-Worker** means a member of the same train crew or work group. The determination, however, is not to be based merely on proximity, but on functionality as well. An engineer, a passenger conductor, and assistant conductors working the same train would be immediate co-workers. A train crew conducting switching operations but separated from each other by distance, cars, etc., so that they are only in radio contact (i.e., not visual contact) are members of the same train crew. If a utility worker is assigned to work with a crew, the utility worker is an immediate Co-Worker.

**Need to Know** means when government employees and contractors may have access to information only if it is necessary for Program management and programmatic evaluation and analysis. This “need to know” will be administered by the National Aeronautics and Space Administration (NASA) and permission granted by the NASA Program Manager.

**Peer Review Team** or **PRT** is a problem-solving team consisting of local representatives for the primary stakeholders to this C<sup>3</sup>RS/IMOU, including FRA, SEPTA, and labor unions (BLET, and SMART). Each primary stakeholder that is a labor union will have at least one primary PRT representative who attends PRT meetings and one secondary PRT representative who serves as a back-up to the primary PRT representative. The PRT may also include a NASA representative.

**PRT Support Team** is a team of SEPTA-appointed representatives that helps the PRT review and implements corrective actions based upon the analysis of close call reports. Labor union or FRA representatives may participate in the PRT Support Team when requested by SEPTA.

**Railroad Operations** means the movement of equipment over rails.

**Real-Time Observation** means a direct visual observance by an FRA Safety Inspector or SEPTA supervisor/manager of a violation of FRA regulations or SEPTA’s operating procedures or practices, including visual observances that occur during operational testing performed by SEPTA supervisors or management.

**SEPTA** means SEPTA’s Regional Rail Division, except for where SEPTA is described as a Common Carrier Transportation Authority in in Article 1.B.

**SEPTA employees** are employees of SEPTA's Regional Rail Division.

**Train Accident/Incident Reporting Threshold** is the monetary accident reporting threshold defined in 49 CFR § 225.19(c).

#### **Article 5. Confidentiality**

NASA shall act as the owner of the data SEPTA employee(s) report under this C<sup>3</sup>RS/IMOU and shall protect the confidentiality of this information through its own governance.

After all relevant data about a reported close call event, including the C<sup>3</sup>RS report and all other information collected by NASA that is relevant to the reported event, have been compiled into a unified document, NASA will develop a de-identified document for further analysis by the PRT. NASA will de-identify this record so that the employee(s)'s identity and any third party reference, including anyone mentioned in the original C<sup>3</sup>RS report, can no longer be determined through direct or indirect means.

NASA shall protect the following information from disclosure when provided in a close call report:

1. The employee close call report form and the content of that form;
2. The name of the employee who submits a close call report;
3. The name of any other employee mentioned in the close call report;
4. The name of the railroad involved in the close call report; and
5. Information that would make it obvious that only a few (fewer than three), easily-identifiable people could have made the close call report, such as exact location and time of a close call, or description of specific, rarely used equipment models.
6. If NASA is unable to protect the confidentiality of the reporter, the report will not be forwarded to the PRT.

The confidentiality of the information collected during this Program will be preserved beyond the cancellation and/or end of this Program.

#### **Article 5.1 Access to Confidential Data**

In the interest of providing the best measures for maintaining the confidentiality of the data, all internal NASA program staff will be granted access to confidential internal use data on a "need to know" basis and for the purposes of completing their work assignments. Internal Program staff includes NASA federal employees and NASA agents. For this Program, NASA agents may include NASA contractors assigned to this Program. The PRT assigned to this Program will have access to de-identified reports and PRT work products.

## **Article 6. Reporting Procedures**

When an employee of SEPTA covered by this C<sup>3</sup>RS/IMOU observes a safety problem or experiences a close call event, he or she should report the problem or event and describe it in detail to NASA. NASA has developed a close call report form that requests information about the date, time, location, contributing factors, actions taken, and potential consequences of an event, along with any other information necessary to fully describe the event or perceived safety problem. NASA has a process for electronic submission or download of report forms at: <http://c3rs.arc.nasa.gov/report/electronic.html>.

A separate close call report form is required for each safety problem or close call event experienced during a tour of duty. The employee will complete the report form, either paper or electronic, and submit it based on the instructions on the form. SEPTA will make forms available at work locations. NASA will mail a receipt to the employee.

If NASA determines the initial report contains insufficient information to determine acceptance, the report may receive provisional acceptance. Final eligibility for receipt issuance will be determined when the NASA rail safety expert obtains more information from the employee. NASA may call the reporting employee for further information and the reporting employee is encouraged to provide information. If, based on evidence, the close call report is accepted as valid by NASA, a receipt is issued to the reporting employee via United States Postal Service.

Any record of such receipt will not be available in the NASA close calls reporting system. If an employee facing discipline has lost or misplaced the receipt, the reporting employee may request a verification letter from NASA. This letter will be provided whenever possible. However, there is no guarantee that NASA can provide a verification letter, since NASA does not store any identifying information about the employee who submitted the report.

Once accepted, NASA will evaluate and de-identify the close call form. NASA will then provide the de-identified information to the PRT for evaluation.

The reporting of close call events is neither intended to circumvent nor meant to be a substitute for any existing SEPTA safety programs or reporting procedures. Rather, it is intended to be an additional tool for improving safety.

### **Article 6.1 Criteria for Close Call Report Acceptance**

Reports will be accepted for any condition or event that an employee perceives as potentially resulting in adverse consequences to the safety of railroad operations. An employee should report any concern about one's own safety or someone else's safety that involves activities supporting railroad operations.

Each close call report must contain sufficiently detailed information about an event so NASA can evaluate it. An interviewer may call the employee(s) to obtain more information

about the event. If in doubt, the interviewer will err on the side of accepting the report. NASA will conduct the first screening and the PRT the second screening.

The following types of reports shall be rejected during the initial screening process:

1. Any train accident/incident that meets the Train Accident/Incident Reporting Threshold;
2. Any reported event that caused or is alleged to have caused any injury, illness, or medical treatment of any kind to any person (including passengers) involved in the event;
3. Reports unrelated to the safety of activities performed in support of railroad operations;
4. Acts of sabotage and other willful violations/acts or criminal offenses, including use of alcohol and prohibited controlled substances; and
5. An event resulting in an identifiable release of a hazardous material.

The following types of reports may be rejected during the initial screening process:

1. Reports that do not include sufficient information when the reporting employee(s) does not accept a follow-up call when contacted;
2. Personal grievances, such as a rejected time slip or perception of unfairness by a supervisor.

**Article 6.2 Conditions Under Which a Reporting Employee is Not Protected from Railroad Discipline, Railroad Revocation of Certification, or Other FRA Civil Enforcement**

SEPTA employees included in this C<sup>3</sup>RS/IMOU receive no protection from railroad discipline, railroad revocation of certification, or other FRA civil enforcement when one or more of the following conditions occur:

1. The employee's action or lack of action was intended to damage SEPTA or another entity's operations or equipment or to injure other individuals, or intentionally placed others in danger (for example, sabotage);
2. The employee's action or lack of action involved a criminal offense;
3. The employee's behavior involved alcohol use, substance abuse, or inappropriate use of controlled substances;
4. The report is rejected under Article 6.1;
5. The event resulted in any type of accident/incident that meets or exceeds the Train Accident/Incident Reporting Threshold;

6. The event caused or is alleged to have caused any fatality, injury, illness, or medical treatment of any kind to any person (including passengers) involved in the event;
7. The event resulted in an identifiable release of a hazardous material; or
8. The event is a Real Time Observation by a SEPTA supervisor/manager or an FRA Safety Inspector, including operational testing conducted by a SEPTA supervisor or management.

FRA will also afford the same protection from civil enforcement action to SEPTA, as that afforded to a SEPTA employee covered by this C<sup>3</sup>RS/IMOU, for any incident for which an accepted close call report is filed. Likewise, if an employee report falls under one of the exceptions listed in Article 6.2 and the employee is not afforded protection, SEPTA will also not receive protection from FRA enforcement action.

#### **Article 6.3 Time Limits to File Report and Receive Protection from SEPTA Discipline, Railroad Revocation of Certification, or Other FRA Civil Enforcement**

To receive protection from SEPTA discipline, revocation of certification, or other FRA civil enforcement, an employee with knowledge of the incident must submit a written (either paper or electronic) close call report to NASA within three business days (Monday – Friday), of the event. For example, an event that occurs at 3:00 a.m. on a Tuesday must be reported by 11:59 p.m. of that Friday. If the event occurs on Saturday at 3:00 a.m. it must be reported by 11:59 p.m. on Wednesday. Saturday and Sunday or Federally observed holidays are not included in the calculation of business days.

#### **Article 6.4 Special Criteria for Known Event Reporting**

This article does not modify SEPTA incident investigation or Alcohol and Drug Testing policy, or supersede any non-FRA Federal or State regulatory requirements (e.g., regulatory requirements promulgated by the Occupational Safety and Health Administration (OSHA)). This article does not include or cover events that are part of real time observations by a SEPTA supervisor/manager or FRA Safety Inspector, including operational testing conducted by a SEPTA supervisor or management.

Events below the FRA Train Accident/Incident Reporting Threshold that do not involve a fatality, injury, illness, or medical treatment, but would require managerial notification and/or protection under SEPTA policy or operating rules, shall be considered eligible close call events. Examples of close call events that must be reported immediately to management/supervisor include, but are not limited to: run-through switches, minor derailments, incomplete job briefings, improper roadway worker protection, roadway worker nearly struck by moving train, and on board electronic monitoring device activations. To facilitate analysis of such events, an employee will provide notification of the event to SEPTA management/supervisor (foreman) without undue delay. A C<sup>3</sup>RS report will be completed and submitted to NASA within the time limits set forth in Article 6.3.

SEPTA agrees it will not initiate any discipline, written warnings, or written counseling for an event reported to and accepted by NASA as a close call.

NASA will provide a receipt for the close call report as proof of an accepted report.

**Article 7. Purpose for Protection from Railroad Discipline, Revocation of Certification, or Other FRA Civil Enforcement**

The main purpose of this Program is for the Parties to learn more about the safety risks they face. An important element of the Program is the shielding of employee(s) from SEPTA discipline, revocation of certification, or other FRA civil enforcement potentially arising from events reported under this system. An additional concern is the need to also shield SEPTA from FRA civil enforcement potentially arising from events reported under this system.

Confidential close call reporting protects the identity of the person disclosing information. The PRT is able to use the information to learn about systemic problems and to educate all Parties. The reporting of close calls will foster an environment that enables the Parties involved to understand systemic failures and implement improvements.

**Article 7.1 Conditions under Which a Reporting Employee(s) is Protected from Railroad Discipline, Revocation of Certification, or Other FRA Civil Enforcement**

Except as provided for in Article 6.2, SEPTA employees included in this C<sup>3</sup>RS/IMOU who report close calls or who are involved in the reported event under Article 6 will be protected from railroad discipline, or revocation of certification provided an appropriate FRA waiver has been granted, or other FRA civil enforcement provided the reports are submitted under Article 6 and Article 6.3.

If an appropriate FRA waiver has been granted, FRA will not require SEPTA to revoke the certification of the employees if the event meets both of the following two conditions:

1. The employee's action or lack of action was not intended to cause damage and/or injury to SEPTA operations, equipment, property, or personnel; to any other entity's property, equipment, or personnel; or to a person; and
2. The employee reports the close call event within the time limits set forth in Articles 6.3 and the report is accepted as provided in Article 6.1.

Employee protection from SEPTA discipline, revocation of certification, or other FRA civil enforcement requires that the same above two conditions apply.

Employees who file an accepted close call report are protected from railroad discipline, revocation of certification by SEPTA, and other FRA civil enforcement arising from the retrospective discovery of events involving violations of operating practices/departamental

rules and procedures involving the event reported. This includes the retrospective (as opposed to real-time) use or review of event recorder data.

All employees covered by this C<sup>3</sup>RS/IMOU that are involved in a close call event will be afforded the same protection as long as at least one immediate co-worker filed an accepted close call report.

SEPTA and FRA are prohibited from using any information contained in a close call report to pursue or defend any disciplinary or civil enforcement actions.

All parties to this IMOU understand that this data is also protected and must not be used for any purpose other than PRT analysis and development of corrective actions. Each of the PRT members will be trained on confidentiality and agree not to disclose close call details outside PRT meetings.

*Note: If FRA grants the waiver petitions in question, copies of the FRA's decision letters will be attached to this IMOU and incorporated by reference.*

#### **Article 7.2 Conditions under Which SEPTA is Protected from FRA Civil Enforcement**

FRA will also afford the same protection from civil enforcement action to SEPTA, as that afforded to a SEPTA employee covered by this C<sup>3</sup>RS/IMOU, for any event for which an accepted close call report is filed. Likewise, if an employee report falls under one of the exceptions listed in Article 6.2 and the employee is not afforded protection, SEPTA will also not receive protection from FRA civil enforcement action.

#### **Article 7.3 Conditions That are Required for Real-Time Observations**

When a real-time observation is made by a SEPTA manager or supervisor under Article 6.2 item 8, the observed employee must be informed of the observation as soon as possible, but not to exceed two hours from the time of the observation of event.

An event may also be considered a real-time observation upon notification by an observing FRA Safety Inspector to the observed employee(s) or the railroad as soon as possible after observing the violation of FRA regulations or SEPTA's operating procedures or practices. The FRA Safety Inspector will document the time, date, location, and a description of the observation on a FRA Inspection Report (6180.96 Report). The FRA Safety Inspector will provide a copy of the Inspection Report to the appropriate railroad officer preferably on the same day, but no later than 24 hours after the observation.

#### **Article 8. How Employee(s) Notify SEPTA or FRA of Protection from Railroad Discipline, Revocation of Certification, or Other FRA Civil Enforcement**

When SEPTA initiates an investigation of an unsafe event or condition and an employee(s) indicates that the event or condition has been reported under the C<sup>3</sup>RS/IMOU, the time limits for pursuing discipline will be put in abeyance if necessary, pending a confirmation receipt from NASA.

When a receipt is available for review, the employee must present it to the railroad manager. If the SEPTA manager can determine the receipt applies to the event, the investigation will be closed. If the Parties do not agree that the receipt is applicable to the event, the employee(s) will present a copy of the receipt to the PRT, who will then accept or reject the receipt as proof of an accepted report of the event in question.

If the PRT accepts the receipt, charges and/or assessed discipline, including any revocation of certification, will be dismissed and all lost time will be paid. If the PRT rejects the receipt, the PRT will advise the SEPTA manager and the time limits for initiating disciplinary proceedings may commence. In such cases, no Party may use nor reference the close call report in the subsequent disciplinary proceedings.

Upon receiving notice of FRA civil enforcement for an event covered by an accepted close call report, the employee(s) will present the receipt to the FRA for assistance in resolving the notice consistent with this C<sup>3</sup>RS/IMOU.

#### **Article 9. Use of Data**

All Parties to this C<sup>3</sup>RS/IMOU agree to use the information they acquire only for positive purposes to improve railroad safety. This could include new or modified training, assessing risk and allocating resources to address those risks, and learning why these close calls are taking place.

#### **Article 10. Reserved**

#### **Article 11. Stakeholders**

The primary organizations that will be involved in the Program are:

- FRA's Office of Railroad Safety;
- NASA;
- SEPTA;
- BLET, SMART;
- PRT; and
- PRT Support Team.

#### **Article 12. Stakeholders' Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The rights, roles, and responsibilities set forth in this C<sup>3</sup>RS/IMOU apply only to Parties, the Parties' employees, and Stakeholders participating in the Program under this C<sup>3</sup>RS/IMOU.

##### **Article 12.1 FRA's Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

FRA will oversee the scope and quality of the work. Experience gained from other modes has indicated that the willingness of persons to submit a close call report depends to a large degree on preserving the confidentiality of SEPTA, the reporting employee(s), and immediate co-workers named in those reports. FRA will not seek, and NASA will not

release to FRA, any information that might reveal the identity of such persons, organizations, locations or events mentioned in close call reports.

Specific FRA responsibilities include the following activities:

- Fund the Program if Congress appropriates funds for the Program. The duration of the Program is dependent upon continued Congressional funding. As provided in Article 14, any party may terminate their participation in the Program at any time.
- FRA may assign personnel to assist the PRT to analyze and summarize emerging trends and recommend corrective actions.
- Work with NASA to ensure that NASA's responsibilities outlined in Articles 5 and 5.1 are fulfilled.

#### **Article 12.2 NASA Responsibility in Support of the C<sup>3</sup>RS/IMOU**

NASA's responsibility in support of the C<sup>3</sup>RS/IMOU is to manage the C<sup>3</sup>RS and protect the confidentiality of the data. FRA will work with NASA to ensure NASA's responsibilities outlined in Article 5 and 5.1 are fulfilled. NASA's responsibility to protect the confidential information as outlined in this C<sup>3</sup>RS/IMOU will be governed by a separate Interagency Agreement (IA) between FRA and NASA providing for the development of a railroad safety reporting system. The performance of this C<sup>3</sup>RS/IMOU is contingent upon the finalization and execution of the IA between FRA and NASA.

#### **Article 12.3 SEPTA Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

SEPTA shall not have any access to nor seek any NASA data that might reveal the identity of employee(s) or individuals mentioned in a close call report. By participating in the Program, SEPTA will:

- Commit to the support and use of the C<sup>3</sup>RS at all levels of the organization;
- Consult on the high-level implementation plan with all SEPTA's Senior Managers;
- Ensure SEPTA senior management and supervisors cannot preempt their respective representative's decision-making discretion for an event reported;
- Use the information collected from the Program for the purpose of improving safety. SEPTA agrees not to use the information reported for the purpose of disciplining, decertifying, or disqualifying employee(s) except for those circumstances covered in Article 6.1 and 6.2;
- Use the PRT recommended corrective actions to evaluate and implement corrective actions in a timely manner as recommended by a consensus of the PRT and the PRT Support Team;

- Develop a communications plan for sharing findings with its employee(s) in order to help achieve success in this Program;
- Fund labor representative's participation on the PRT at the rate of one basic day at the current governing rate of the crafts represented per day worked, or shall make whole the labor representative for lost earnings, whichever is greater. When needed, SEPTA will pay for and reimburse travel expenses outside of SEPTA's service area; and
- Travel for PRT members to attend the Annual User Group meeting will be at the discretion of SEPTA.

**Article 12.4 Labor Union(s) Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

By participating in the Program, labor unions signatory to this C<sup>3</sup>RS/IMOU shall have the following responsibilities:

- Commit to and promote use of the Program at all levels of the organization;
- Appoint representatives to participate on the PRT; and
- Participate on the PRT to analyze and summarize emerging trends and recommend corrective actions.

**Article 12.5 Peer Review Team's Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The PRT's primary responsibility will be to accept for review de-identified close call reports from NASA, and to identify and analyze multiple reports in order to:

- Identify and analyze emerging patterns or trends in close calls, relate those to corrective actions taken by SEPTA, and advise and assist with the implementation of corrective actions;
- Create, review, and discuss a summary report comprised of the individual close call reports, emerging trends, identified root causes, and suggested corrective actions; and
- Assess the association between emerging patterns or trends in close calls and relate those to corrective actions taken by SEPTA.

The PRT will function using, but not limited to, the following guidelines:

- PRT representatives will represent their constituency's perspectives when reviewing or forming a comprehensive view of close call events;

- The PRT will develop a handbook for PRT governance and succession planning. The PRT can change the handbook as conditions warrant;
- The PRT will meet on a required basis, after agreeing to a schedule that considers the availability of PRT members. The PRT may adjust the meeting frequency as needed;
- The PRT conducts business only when a quorum is present. A quorum is defined within the PRT handbook;
- The members of the PRT are encouraged to consult with their peers or industry experts for guidance on complex or sensitive matters – where more information is desired to make an informed decision. The use of subject matter experts is encouraged;
- The PRT will conduct its own event analysis driven by the NASA report;
- Each representative is empowered to offer possible sources of risk, error recovery mechanisms, and corrective actions. Diverse perspectives are expected and encouraged. The PRT’s opinions reflect a collaborative decision-making process among all PRT representatives;
- The PRT makes its decisions using consensus when assigning root causes and proposing corrective actions. It does not require that all members believe that a particular decision is the best one. Instead, all representatives’ positions are given a proper hearing and are addressed, and a decision is one that all can accept;
- If there is a dispute concerning the application of this C<sup>3</sup>RS/IMOU, the Parties to this C<sup>3</sup>RS/IMOU are encouraged to use interest based problem solving techniques to resolve the matter internally. PRTs may contact the FRA C<sup>3</sup>RS implementation team for assistance if the matter cannot be resolved internally;
- The PRT will protect the confidentiality of the reporting employee(s). The PRT will not disclose any information that would make it possible to identify the reporting employee(s) mentioned in the close call report to any person or entity. All Parties also agree to protect the confidentiality of any and all data, analysis, findings and recommendations related to this C<sup>3</sup>RS/IMOU. The confidentiality of this information will survive in perpetuity.

#### **Article 12.6 PRT Support Team Roles and Responsibilities**

The PRT Support Team’s responsibilities include:

- Support the PRT during implementation of PRT recommendations;
- Provide continuing Program support;
- Evaluate and implement corrective actions the PRT recommends in a timely manner;

- Review PRT decisions and provide feedback to the PRT, parties, and other stakeholders;
- Report corrective actions SEPTA implements to the PRT or report why no action was taken; and
- Report on the measured effectiveness of corrective actions to the PRT.

**Article 12.7 Reserved**

**Article 13. Modifications**

Modifications to this C<sup>3</sup>RS/IMOU may be proposed at any time during the period of performance by any Party, and shall become effective upon written approval by all Parties.

**Article 14. Program Duration/Employee(s) Protections**

This C<sup>3</sup>RS/IMOU will be in effect until cancelled as outlined below. Cancellation of participation is subject to the following restrictions:

- Parties to this C<sup>3</sup>RS/IMOU may cancel their respective participation with a 45 day written notice to all Parties;
- The termination or modification of the Program will not adversely affect anyone who acted in compliance with the terms of the Program in effect at the time of that action; i.e., if the C<sup>3</sup>RS/IMOU is terminated, all reports and investigations that were in progress will be handled under the provisions of the Program until they are completed. Employee(s) reporting close call events under this Program will remain protected from SEPTA discipline, revocation of certification, or other FRA civil enforcement for reported events,
- Should any party serve the appropriate cancellation notice, all Parties commit to meet within the 45-day period to seek resolution to avoid cancellation; and
- The confidentiality provided under this C<sup>3</sup>RS/IMOU survives its cancellation.

**Article 15. Record Keeping**


To ensure compliance, all records and documents relating to this Program, including any documentation from the PRT, shall be kept in a manner prescribed by SEPTA.


**Article 16. C<sup>3</sup>RS/IMOU Signatures**


The Parties below approve this Implementing Memorandum of Agreement and the principles of the Confidential Close Call Reporting System.


  
\_\_\_\_\_  
Jeffrey D. Knueppel  
General Manager, SEPTA  
Date 12/12/16

  
\_\_\_\_\_  
Ronald G. Hopkins  
Assistant General Manager – Operations, SEPTA  
Date 12/12/16

  
\_\_\_\_\_  
Scott Sauer  
Assistant General Manager – System Safety, SEPTA  
Date 12/12/16

  
\_\_\_\_\_  
Bernard E. Norwood  
General Chairman, SMART –TD Local 61  
Date 12/12/16

  
\_\_\_\_\_  
A.J. Bright  
Vice General Chairman, SMART –TD Local 61  
Date 12/12/16

  
\_\_\_\_\_  
Ray Boyer  
Vice General Chairman, SMART –TD Local 61  
Date 12/12/16

\_\_\_\_\_  
Mike Stevens  
Vice General Chairman, SMART –TD Local 61  
Date \_\_\_\_\_

  
\_\_\_\_\_  
Richard G. Dixon  
General Chairman, BLET  
Date 12/12/16

  
\_\_\_\_\_  
Donald T. Hill  
First Vice Chairman, BLET  
Date 12/12/16

\_\_\_\_\_  
Curtis E. Parrish, Jr.  
Second Vice Chairman, BLET  
Date \_\_\_\_\_

*Robert C. Lauby*

Robert C. Lauby  
FRA Associate Administrator for Railroad Safety and  
Chief Safety Officer

*12-12-16*

Date

# Washington Metropolitan Area Transit Authority

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

## MEMORANDUM OF UNDERSTANDING

For the Confidential Close Call Transit Safety Reporting System

7/23/2018



OFFICE OF THE ASSISTANT SECRETARY FOR RESEARCH AND TECHNOLOGY  
Bureau of Transportation Statistics

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**Memorandum of Understanding (MOU) for the Confidential Close Call Transit Safety Reporting System for the Washington Metropolitan Area Transit Authority**

**1. Background**

On June 22, 2017, the Washington Metropolitan Area Transit Authority Board of Directors affirmed the Safety Management System (SMS) Policy Statement as reflective of the agency's commitment to safety and continuous improvement:

The management of safety is one of our core business functions. The Washington Metropolitan Area Transit Authority (WMATA) is committed to developing, implementing, maintaining, and constantly improving processes such that all our transit service delivery activities take place under a balanced allocation of organizational resources, aimed at achieving the highest level of safety performance and meeting established standards.

All levels of management and all employees (and contractors) are accountable for the delivery of this highest level of safety performance. Accountability starts with the Board of Directors, and flows to all levels of WMATA: Executives, Managers, Supervisors, employees, and contractors.

As part of its commitment to safety, the Board specifically states, among other things, that WMATA will support safety management with appropriate resources to create an organizational culture that fosters safe practices, encourages effective employee safety reporting and communication, and actively manages safety. Also, WMATA will take no retaliatory action against any employee who discloses a safety concern through the employee safety reporting program.

WMATA frontline employees, like employees in other industries, are often unwilling to report events that could result in adverse safety outcomes, particularly with respect to self-reported behaviors, because disclosure may result in discipline for the employee and/or fellow employees. Confidential safety reporting programs address these problems by collecting information about close calls in a way that protects the identity of the employee. When individual close call events are analyzed collectively, the agency can identify safety hazards and develop solutions to these threats. Analyses/hazard identification from close call reports can also provide important safety information to the transit industry.

The Confidential Close Call Transit Safety Reporting System detailed in this MOU supports the Board's SMS commitments above, particularly to encourage effective employee safety reporting and ensure that no retaliatory action is taken against any employee who reports a safety concern.

## **2. Purpose of the Memorandum of Understanding**

WMATA, the Amalgamated Transit Union, Local 689 (L689) and the International Brotherhood of Teamsters Local 922 (L922) share an interest in improving bus and rail transit safety. In support of the General Manager's April 2017 plan to keep Metro safe, reliable, and affordable, the parties are sponsoring the Confidential Close Call Transit Safety Reporting System ("Close Call") project ("the Project") to demonstrate the effectiveness of a confidential, non-punitive close call reporting system for WMATA/L689/L922 and the bus and rail transit industry at large. This system will capture data that would otherwise not be captured as well as provide WMATA with opportunities to identify safety issues that require preventive safety actions.

A confidential close call transit safety reporting system is not separate and apart from existing WMATA reporting systems. It provides another tool to identify and assess safety risks in our transit agency operation. Close call reporting systems present additional opportunities to improve WMATA's safety performance by increasing the focus on prevention. This system can produce critical, new information that can lead to strategies and interventions to prevent accidents and injuries. The system can also be used to monitor changes in safety over time and to uncover hidden unsafe conditions that were previously unreported.

Confidentiality for employees who report close calls is a critical success factor for the Project. WMATA/L689/L922 have identified the Bureau of Transportation Statistics (BTS), Office of the Assistant Secretary for Research and Technology of the United States Department of Transportation as the third party to accept, store, process, and analyze the reports, as well as to disseminate reports to the participants, other agencies as appropriate, and the public on trends and new risks.

The Close Call Project should foster a voluntary, cooperative, non-punitive environment to communicate safety concerns. Through analysis of close calls, the parties will receive information about factors that may contribute to unsafe events and the error recovery mechanisms that prevented an adverse consequence from occurring. WMATA can use this information to help develop preventive safety actions to help reduce risks to safety. The Project should also track and assess the preventive safety actions taken in response to close call events to identify successful and unsuccessful actions. The Project should help determine what factors (i.e., equipment design, training, operating practices, management practices) promote the elimination of errors and what factors promote recovery from errors.

This Memorandum of Understanding (MOU) describes the provisions of the Project and explains the rights, roles, and responsibilities of the participants. It describes how this Project will be implemented.

### **3. Goals of the Confidential Close Call Transit Safety Reporting System**

For this Project, as amended, close call reports should address the following goals:

- Improve the safety culture by encouraging and increasing the frequency of employee reporting of safety concerns;
- Monitor the frequency of known existing risks to safety;
- Learn about new risks to safety;
- Heighten awareness of safety risks in the transit industry; and
- Enable WMATA, L922 and L689 to identify safety issues that require preventive action.

### **4. Definition of a “Close Call” Event**

A **close call** is a situation or circumstance that had the potential for safety consequences but did not result in an adverse safety event.

It can be any safety concern that could lead to an unsafe event or condition, or any event that is perceived as potentially endangering one’s own safety or someone else’s safety at work, including employees, contractors, or the public. It can also relate to equipment or the environment. Knowledge about a close call presents an opportunity to improve safety practices and culture.

An event is not considered a close call when it is observed in real time and the WMATA supervisor informs the employee of the observed violation immediately.

### **5. Confidential Close Call Transit Safety Reporting System Project Description**

The Project is designed to perform six primary functions:

1. Accept reports of close calls that meet the criteria set forth in Section 7;
2. Store confidential data;
3. Analyze close calls;
4. Disseminate reports on trends and other information to increase WMATA and transit industry safety;
5. Track WMATA’s reports on preventive safety actions to measure the reporting system’s impact on safety; and
6. Evaluate and identify ways to improve the effectiveness of the reporting system.

The system will be a dynamic project, and while this MOU attempts to identify the elements needed to make this a successful project and WMATA a safer organization, the project will be adjusted as needed to ensure it continues to meet objectives and the needs of the WMATA, L689 and L922.

**5.1 Steps in the reporting process**

Step	Responsible party
1. Identify an unsafe event or condition, initiate and then complete a close call report.  Employees can use an 800-telephone number to initiate a close call and then fill out a report online within the 24-hour deadline to complete the process. Employees also have the option of completing their reports entirely using an 800-telephone number within the required timeframes.	Employee(s)
2. Enter close call report in tracking system <sup>1</sup> a. Confirm eligibility (see section 7.1, criteria for close call report acceptance). b. Provide confirmation receipt to employee. c. Provide feedback to reporting employee(s) if report is rejected.	BTS
3. BTS will interview all reporting employees to collect additional details about the reported close call event or unsafe condition. If it meets acceptance criteria, report receives final acceptance.	BTS
4. Analyze individual close call report for preliminary root causes and multiple reports for emerging trends and new sources of risk.  Produce summary of report based on the collected data and forward to the Peer Review Team (PRT) for analysis.	BTS

<sup>1</sup> If initial report contains insufficient information to determine acceptance, report will receive provisional acceptance by BTS. Final eligibility will be determined when the interviewer obtains more information from the employee.

<p>5. Meet at regular intervals to:</p> <ul style="list-style-type: none"> <li>a. Review BTS' recommendation on preliminary root causes of reported close call incidents. Analyze summarized data from multiple reports;</li> <li>b. Identify new sources of emerging trends and new types of safety critical risks;</li> <li>c. Assess the association between emerging patterns or trends in close calls, relate those to preventive safety actions to be taken by WMATA, and approve implementation strategies. <b>Management representatives on the PRT are empowered to approve preventive safety actions.</b> If the PRT reaches an impasse or recommends actions that require significant additional resources or executive level actions, PRT will refer those actions to the Chief Operating Officer (COO) or Chief Safety Officer (CSO) as appropriate for approval. Actions approved by the PRT do not supersede corrective actions already established to address Federal Transit Administration, National Transportation Safety Board, or other external party requirements.</li> <li>d. Review and discuss a summary report comprised of the individual close call reports generated from the Close Call Safety Reporting System, emerging trends, identified root causes, and approved (or recommended based on the criteria in Step 5c. above) preventive safety actions;</li> <li>e. Review and discuss all reports prior to their distribution.</li> </ul>	<p>PRT or WMATA COO and/or CSO as appropriate</p>
<p>6. Review and accept individual WMATA decisions on preventive safety actions as needed based on Step 5c.</p>	<p>WMATA COO and/or CSO as appropriate</p>
<p>7. Provide oversight and direct the implementation of approved preventive safety actions.</p>	<p>WMATA COO and CSO</p>
<p>8. Track preventive safety actions taken in response to close call events.</p>	<p>WMATA COO and CSO</p>
<p>9. Make feedback available to employees on preventive safety actions and safety outcomes resulting from their close call reports, including a quarterly status report (WMATA/L689/L922) and individual outreach to reporters (BTS).</p>	<p>WMATA/L689/L922 BTS</p>
<p>10.</p>	

10. Write an annual report describing the status of the project, any modifications made, and lessons learned to date; report on reporting activity; describe emerging trends and recommended solutions; distribute and post on a Confidential Close Call Transit Safety Reporting System website.	BTS
11. Write Special Reports on single topic issues, as needed. Distribute to all participants and post on the BTS Close Call website.	BTS
12. Develop and continue to improve reporting, tracking and preventive safety action monitoring systems.	WMATA, BTS

**6. Eligibility**

The Project applies to all WMATA employees who are members of L689- and L922 and their frontline supervisors. A WMATA employee filing a close call report in accordance with this MOU must belong to and be performing in one of the eligible roles to receive protection from WMATA discipline.

**7. Reporting Procedures**

When a WMATA employee covered under this MOU observes a safety problem or experiences a close call event, he or she should note the problem or event and describe it in enough detail using the close call reporting form or via telephone so that the summary of the report can be evaluated by BTS and the PRT. Summary reports will be depersonalized by BTS before the PRT is given access to the reports.

**7.1 Criteria for close call report acceptance**

Employees included in the Project can report any safety concern that could lead to an unsafe event or condition. Reports can be accepted for any condition or event that is perceived as potentially endangering employees, the public, equipment, or the environment. Any concern about one’s own safety or someone else’s safety at work can be reported. Each close call report must contain sufficiently detailed information about a safety event so that BTS can evaluate it. A BTS interviewer may call the employee to obtain more information about the event; if in doubt, the interviewer will err on the side of accepting the report.

BTS will conduct the first screening and the PRT may conduct a second. The following types of reports will be rejected:

1. Reports unrelated to the safety of WMATA’s rail/transit infrastructure or bus operations;

2. Urgent real-time issues (e.g., a runaway train);
3. Grievances, related to a safety event, which have previously been filed pursuant to the parties' Collective Bargaining Agreement.

## **7.2 Close call report form**

BTS will develop an electronic close call report form that will request information about the date, time, location, contributing factors, actions taken, potential consequences, along with enough other information to fully describe the event or perceived safety problem. The employee shall complete the report form and submit it to BTS in accordance with the instructions on the form. BTS will provide a confirmation receipt to the employee. All reports will be depersonalized by BTS before the PRT is given access to the reports.

WMATA, L922 and L689 will post submission instructions and forms on company and union bulletin boards, newsletters, and websites.

## **7.3 Time limit to initiate and finish reporting to receive protection from discipline**

**Initiate reporting in 16 hours.** Employees must initiate the close call report process no later than 16 hours after the incident. Reporting may be initiated in one of two ways: 1) begin entry of required information via the on-line reporting mechanism (eSubmit); or 2) call the 800-telephone number if access to the on-line reporting mechanism is not available during the first 16 hours after the incident. BTS will record the date and exact time a telephone call is started.

**Finish reporting in 24 hours.** Once a close call report is initiated on-line or via telephone, employees must finish the reporting process by fully completing and submitting to BTS the electronic report on-line (eSubmit) no later than 24 hours after the incident. Incomplete electronic reports or those submitted outside the 24-hour timeframe will be rejected by the on-line system as non-qualifying.

BTS will record the date and time that completed reports are received via the on-line mechanism (eSubmit) and will determine if the report meets the timeframes established by this MOU. To be fully accepted as a qualifying report, each report must also meet all other acceptance criteria as defined in this MOU.

**Employees included in the Project can file a confidential close call report at any time after the occurrence of an event or perceived safety issue but reports not initiated within 16 hours or completed within 24 hours as detailed above will not provide protection from discipline.**

## **8. Confidentiality**

BTS shall act as the owner of the data reported to it by transit agency employees under the Close Call Project and protect the confidentiality of this information through its own statutory authority (e.g., Confidential Information Protection and Statistical Efficiency Act (CIPSEA)).

After BTS has determined that all relevant data from a close call event has been collected, the close call report shall be de-identified so that the employee's identity or anyone mentioned in the report can no longer be determined.

BTS shall protect the following information from disclosure when provided in a close call report:

1. The employee's close call report and the content of that report;
2. The name of the employee who submits a close call report;
3. Names of any other employees mentioned in the close call report, regardless of whether they are part of the Project;
4. Any other information that would make it obvious that only a few, easily identifiable people could have made the close call report; and
5. Evidence and other information gathered during a PRT evaluation of a close call report.

## **9. Non-Punitive Disclosure of Information**

### **9.1 Background**

Since the main purpose of this Confidential Close Call Transit Safety Reporting System is for WMATA, Local 922 and Local 689 to learn more about the safety risks they face, a central element is to provide a non-punitive environment.

Successful confidential close call safety reporting systems protect the identity of the person disclosing information and use the information for learning about system problems and coaching employees. Reporting unsafe conditions and actions are fostered in an environment where the organization wants to learn why the system failed and focus on improving it. Therefore, WMATA is prohibited from using any information contained in a close call report filed with BTS to pursue any disciplinary or enforcement action, including that arising from the retrospective discovery of events involving violations of operating practices regarding the reported event. This includes the retrospective (as opposed to real time) use or review of recorded event data, including vehicle event recorders, audio recordings and video recordings (to include closed-circuit television (CCTV)). For trains, "event recorder" means a device, designed to resist tampering, that monitors and records data on train speed, direction of motion, time, distance, throttle position, brake applications and operations (including train brake, independent brake, and, if so equipped, dynamic brake applications and operations), and, where the train is so equipped, cab signal

aspect(s), over the most recent 48 hours of operation of the electrical system of the train on which it is installed. For buses, "event recorders" mean DriveCam.

Using specific events or trends highlighted by the Close Call reporting system to identify, target, or discipline employees is outside the spirit of this project and is a direct violation of CIPSEA.

### **9.2 Interview Requirement that protects a reporting employee from discipline or enforcement action**

Employees who file a close call report with BTS and meet the eligibility and reporting procedures in sections 6 and 7 must also consent to an interview if requested by BTS to receive protection from discipline.

### **9.3 Conditions when a reporting employee is not protected from discipline**

#### **The following events do not qualify for protection from discipline under the Project:**

1. The employee's action or lack of action was **intended** to damage WMATA's operations or equipment, or injure other employees, or the employee's action or lack of action purposely places others in danger (i.e., sabotage);
2. The employee's action or lack of action involved a criminal offense;
3. The employee's action or lack of action violated a traffic safety law leading to a citation (e.g., red light cameras, speed cameras or observed by law enforcement);
4. The employee's behavior involved substance abuse or inappropriate use of controlled substances;
5. The close call report contains falsified information;
6. The event resulted in a transit agency accident/incident and/or has caused or alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event;
7. The event resulted in an identifiable release of a hazardous material/major reportable spill;
8. In addition, the following specific events do not qualify for protection under the Project:
  - a. Rail
    - i. Station overrun of more than one door leaf
    - ii. Exceeding the limits of an absolute or permissive block
    - iii. Red Signal Violation by train or work equipment
    - iv. Wrong Side Door Opening

- v. An employee is not exempt from discipline for a violation that WMATA identifies contemporaneously (e.g., a vehicle (maintenance/revenue) passes a red signal without proper authorization and the control point (ROCC/Interlocking Operator) notices it before the vehicle completely clears the associated switch) before the employee files a close call report. In such situations, WMATA may use event recorder information to support discipline. For example, a WMATA official who observes a revenue or maintenance vehicle operate past a signal that requires a stop may use any relevant data recorded by the train's event recorder in pursuing disciplinary action against the employee(s), regardless of whether he/she/they timely file a close call report.

b. Bus

- i. Rollaway bus involving the operator's failure to follow procedures for proper vehicle securement.

Other than what is stated above, there are no other changes to WMATA's disciplinary policies or procedures.

**10. Use of Data**

All participants in the Close Call Project agree to use the information they acquire only for the purposes described in this MOU. Data collected by BTS under this MOU may only be used for statistical purposes. All confidential micro-data, including PRT input on root causes and corrective actions, collected or generated as part of the close call process will not be used to discipline or disqualify an employee for the reported covered behavior, to develop rules or regulations, to initiate enforcement actions, or for any other non-statistical purpose. BTS will make confidential data available to the PRT to perform tasks associated with the design, implementation and monitoring of the problem identification and corrective actions processes as well as to support the design and implementation of communications sharing within the WMATA organization and the public domain. Access to confidential information will be granted in accordance with the BTS Close Call Data Program Confidentiality Manual and this MOU.

Data and information developed through the close call process deemed by BTS to be publicly releasable will be made available to interested parties in accordance with pertinent provisions in this MOU and BTS confidentiality requirements in the Confidentiality Manual. Before releasing any project work products (such as Annual or Quarterly Reports, Newsletter articles, web postings, etc.), BTS will coordinate with the PRT and with WMATA's Close Call Steering Committee (CCSC) to assure consistency in the work products and other project documents placed in the public domain.

This information may be used to develop new or modified training programs, assess risk and allocate resources to address those risks, and learn why these reported unsafe events are taking place. WMATA, IBT and ATU may use any publicly releasable information to perform their safety oversight role, including disseminating important safety information to WMATA employees and developing safety and enforcement tools (including regulations) to address widespread safety concerns.

#### **11. Preventive Safety Actions**

Preventive safety actions are the actions taken by WMATA in response to the PRT's reports of emerging trends and new types of safety-critical events.

#### **12. Stakeholders' Responsibilities in Support of the MOU**

The rights, roles, and responsibilities set forth in this MOU apply only to stakeholders in the Close Call Project.

There are four primary stakeholder organizations that will be involved in the Project: WMATA, L689, L922 and BTS.

1. **WMATA** is the transit agency participating in the Close Call Project. Provides funding and resources for the Close Call Project and works with the other stakeholders to implement it. Reviews PRT reports, accepts recommendations, takes preventive safety actions, tracks results of actions, and evaluates program.
2. **L689** and **L922** are the labor organizations that represent employees who are eligible to participate in the Close Call Project.
3. **BTS** is a federal statistical agency within the US Department of Transportation that serves as an independent third party that collects, analyzes, and maintains the confidential close call data collected for WMATA. Identifies safety trends and emerging risks and writes and distributes publications to share this information with participants and the transit industry.

##### **12.1 BTS' responsibilities in support of the MOU**

###### **A. Confidentiality Operations**

1. Provide confidentiality for close call reports, any information generated as a part of the close call process (e.g., BTS interview data, close call incident reports, PRT Multiple Cause Incident Analysis (MCIA) work products).
2. Liaison with WMATA, ATU, IBT, and other groups regarding the data, data systems, and data confidentiality.

3. Develop the Close Call Program Confidentiality Manual for the transit close call project. It covers the following topics:
  - a. data management plan, including data storage procedures, and data distribution method and schedule,
  - b. data security protocol,
  - c. IT system security plan,
  - d. process and protocol for data review,
  - e. process and protocol for the review, production, and dissemination of the Annual Report, and other data products,
  - f. establishment of a Disclosure Review Board (DRB), and
  - g. development of confidentiality training curriculum and materials;
4. Provide confidentiality training to PRT members and BTS staff.
5. Responsible for securing OMB approval for all data collections related to this Project.

**B. Program Planning and Implementation**

1. Design the BTS business process for receiving and processing close calls reported by WMATA employees. This includes developing processes and procedures for data collection, data processing, data analysis, and data dissemination;
2. Coordinate with WMATA and the Close Call Steering Committee on the development of tools and processes used in the collection and processing of close call information. Tools and work processes include the following:
  - i. Form used for reporting close call incidents,
  - ii. Process and protocol for conducting interviews with reporting employees;
  - iii. Standardized interview tool,
  - iv. Process for data exchange (such as redacted reports, analyses and information on PRT work product),
  - v. Special Reports and other products (i.e., quarterly and annual reports);
3. Develop job descriptions and requirements for project support staff, including transit safety experts, data analysts, IT specialists, and research assistants;
4. Develop a plan for setting up the Peer Review Team (PRT), including roles and responsibilities of team members, eligibility and selection criteria, tenure, and replacement protocol;
5. Develop templates for data products to be released in the public domain;
6. Establish contract support needed to operate the reporting system;
7. Assist WMATA staff in the development of communication and outreach materials on close call reporting;
8. Develop training materials on WMATA's Close Call Project for training the trainers at WMATA; and train the trainers at WMATA;
9. Guide and assist WMATA's trainers in the rollout of the Project at local project sites;

10. Develop the BTS Operations Manual, including a process for rigorous quality assurance of data input and output;
11. Develop technical requirements for an IT system that supports the Project;
12. Develop process and technical requirements for data exchanges and system interfaces with existing data systems at WMATA;
13. Customize the existing BTS C<sup>3</sup>RS IT system to meet the technical requirements of WMATA's close call project. This includes implementation of system interfacing with WMATA's data systems, as needed;
14. Develop custom made analytical tools to facilitate analysis of emerging patterns of safety issues and reporting trends;
15. Develop a training curriculum on MCIA for PRT members, BTS staff, and other interested stakeholders;
16. Train the PRT in MCIA;
17. Train BTS' team (Feds and contractors) on the Project; and
18. Develop analytical tools for identifying and presenting patterns and trends of close call reporting.

**C. Reporting System Operations**

1. Process incoming close call reports to ensure accuracy and compliance with this MOU;
2. Conduct employee interviews to collect additional details about the reported event, and finalize data quality review;
3. Perform preliminary root cause analysis on single and multiple cases;
4. Prepare monthly project status reports for WMATA;
5. Perform quarterly system-wide data quality evaluation and data validation;
6. Present results to the Close Call Steering Committee;
7. Summarize emerging trends and corrective actions in quarterly briefings to the Close Call Steering Committee;
8. Write an annual report describing the status of the Project, any modifications made, and lessons learned to date; describe emerging trends and recommended solutions; distribute report to all participants in the Close Call Project.
9. Maintain an archival system of all project data and information, including MCIA records and other data generated by the PRT;
10. Track status of project deliverables and share results with PRT and the Close Call Steering Committee quarterly.
11. Maintain and update the PRT Handbook of Operations, as needed.
12. Analyze data collected through close call reports, interview data, the data collected through the MCIA tool on contributing factors and root causes, recommended corrective actions and relevant WMATA data on exposure (to provide a denominator). BTS will use these data to identify trends in the types of events that occur over time. The focus here

is on problem identification. BTS will also identify trends in contributing factors and root causes and evaluate the effectiveness of corrective actions on close call reporting using appropriate covariate data. Results from such analyses will appear in special reports, as appropriate.

13. Assess the association between emerging patterns of safety issues and/or reporting trends in close calls and relate those to safety preventive actions taken by the WMATA.
14. Manage contract support needed to operate the reporting system, including:
  - a) Provide annual budget, monthly project reports, including status of funding expenditures and projected outlays; and,
  - b) Hire and manage staff (provide training and oversight).

**D. Production of Close Call Project Products for the Public Domain**

1. Produce an annual report describing the status of the Project, any modifications made, and lessons learned to date; describe emerging trends and recommended solutions; and
2. Prepare special reports, as appropriate.

**E. Interacting with the Peer Review Team**

1. Work with the PRT to develop the Handbook of Operations (HO) for the PRT;
2. Maintain and update the PRT HO, as needed.
3. Plan and host PRT meetings;
4. Serve as an active member on the PRT responsible for the following:
  - a. present results of preliminary root cause analyses,
  - b. respond to inquiries from the PRT, such as clarification of incident reports, confidentiality issues, etc.,
  - c. collect and store results of PRT's work, and
  - d. present and discuss reports on data analysis, trend analysis, and data quality evaluations conducted by BTS;

**F. General**

1. Prepare monthly project status reports for WMATA.
2. Provide WMATA or other stakeholders various statistical analyses of data submitted to the close calls reporting systems or other data sets related to transit safety, as needed.
3. Prepare briefing papers and other presentation materials about the Project.
4. Track status of project deliverables and share results with PRT and the Close Call Steering Committee.
5. Coordinate with PRT and/or WMATA, IBT and ATU on any new requirements for the Close Call Report form, structured interview questions, MCIA tool and other upgrades to electronic tools (e.g., data analysis tools).

### **12.2 WMATA's responsibilities in support of the MOU**

WMATA has the following responsibilities:

1. Commit to the use of the confidential close call transit safety reporting system at all levels of the organization.
2. Consult on the high-level implementation plan and allocate funding each year dedicated to implementing preventive safety actions.
3. Assist in explaining the Project to employees as it is initiated and providing ongoing training and communication to employees.
4. For rail and bus each, appoint two primary WMATA representatives and four alternates to participate on the PRT to analyze and summarize emerging trends as well as to approve (or recommend based on the criteria in Section 5.1, Step 5c. above) preventive safety actions.
5. Senior management and supervisors cannot preempt their respective PRT representative's decision-making discretion for an event reported.
6. Stay "at arm's length" from individual close call report data.
7. Not seek any information that might reveal the identity of employees or violate data disclosure requirements as defined in this MOU and the BTS Confidentiality Procedures Manual.
8. Take preventive safety actions in a timely manner.
9. Report preventive safety actions taken to other stakeholders.
10. Develop a communication plan for sharing findings with employees as an important means to achieve success in this Project.
11. Monitor implementation of the MOU in cooperation with all other signatories via periodic Steering Committee meetings that include representatives from WMATA, L689, L922 and BTS.

### **12.3 ATU Local 689's and IBT Local 922's responsibilities in support of the MOU**

1. Commit to the use of the confidential close call transit safety reporting system at all levels of the organization.
2. Consult on the high-level implementation plan.
3. For Local 922, appoint one primary and two alternate representatives to participate on the PRT to analyze and summarize emerging trends as well as to recommend preventive safety actions.

4. For Local 689, appoint two primary and four alternate representatives to participate on the PRT to analyze and summarize emerging trends as well as to recommend preventive safety actions.
5. Monitor implementation of the MOU in cooperation with all other signatories.
6. Assist in explaining the confidential close call transit safety reporting system to employees as the Project is initiated and providing on-going training and communication to union members.
7. Officials or Executive Leadership cannot preempt their respective PRT representative's decision-making discretion for an event reported.

#### **12.4 Peer Review Team's responsibilities in support of the MOU**

Per membership identified in 12.2 and 12.3, the PRT consists of three individuals from WMATA, ATU Local 689 and IBT Local 922, and one representative from BTS, to represent the stakeholders' perspectives in forming a comprehensive view of close call events. The PRT will meet at a minimum on a quarterly basis. Their primary responsibilities include the following:

1. Makes final determination of report eligibility in cases given provisional acceptance by BTS.
2. Review BTS' recommendation on preliminary root causes of reported close call incidents.
3. Analyze summarized data from multiple reports on emerging trends of safety concerns;
4. Assess the association between emerging patterns or trends in close calls, relate those to preventive safety actions to be taken by WMATA, and advise on implementation;
5. Review and discuss a summary report comprised of the individual close call reports generated from the Confidential Close Call Transit Safety Reporting System, emerging trends, identified root causes, and approved preventive safety actions;
6. Review and discuss all project reports (Annual, Quarterly, Special Reports, etc.) prior to dissemination.

The PRT will function using, but not be limited to, the following guidelines:

1. The PRT can conduct business only when a quorum is present. A quorum exists when all designated representatives, or their alternates, are present. The designated representative will name an alternate to act when the designated representative is unable to attend;
2. The primary stakeholders on the PRT are encouraged to consult with their constituents and/or industry experts for guidance on complex or sensitive matters, where more information is desired to make an informed decision.

3. The PRT will conduct its own root-cause analysis, driven by the risk data (and a preliminary root-cause analysis) provided by BTS;
4. Each representative is empowered to offer possible sources of risk, error recovery mechanisms, and preventive safety actions. Diverse perspectives are expected and encouraged. The PRT's opinions reflect a collaborative decision-making process among all PRT representatives;
5. The PRT makes its decisions using "consensus" when assigning root causes and developing preventive safety actions. Consensus means the voluntary agreement of all representatives. It does not require that all members believe that a particular decision is the best one. Instead, all representatives' positions are given a proper hearing and are addressed, and a decision is one that all can accept;
6. The PRT members will receive training in data confidentiality and sign non-disclosure agreements with BTS;
7. The PRT will not disclose any information that would make it possible to identify the reporting employee(s) mentioned in the close call report;
8. The PRT will meet at the offices of BTS to ensure the confidentiality of any reported close call data.

### **13. Modifications**

While the MOU is intended to be permanent for the period of performance, WMATA, L922 and L689 may modify this MOU by written agreement entered into by WMATA's General Manager/Chief Executive Officer, the President/Business Agent of ATU/Local 689, the President/Business agent of IBT/Local 922 and the BTS Director.

### **14. Project Duration**

This MOU is in effect through December 31, 2018, with two one-year options, which may be exercised by written agreement of the participants no later than October 31, 2018, or in the case of the second option year, no later than October 31, 2019.

Participants in the project may terminate their participation in the project at any time by providing the parties with 90-days' notice to the following:

Notice: All notices and other communications under the MOU shall be directed to the following, who shall also serve as the point-of-contact for any issues related to this MOU:

To WMATA

Attn: Joseph Leader  
Title: Chief Operating Officer  
Email: [jleader@wmata.com](mailto:jleader@wmata.com)

To Amalgamated Transit Union, Local 689

Attn: Jackie Jeter  
Title: President and Business Agent  
Email: [jackiejeter@atulocal689.org](mailto:jackiejeter@atulocal689.org)

To International Brotherhood of Teamsters, Local 922

Attn: Isiah Bryant  
Title: President  
Email: [teamsters922@gmail.com](mailto:teamsters922@gmail.com)

To Bureau of Transportation Statistics

Attn: Demetra Collia  
Title: Data Collection Officer  
Email: [Demetra.Collia@dot.gov](mailto:Demetra.Collia@dot.gov)

Each party will update, as needed, the identity of the person who is authorized to accept notice.

Termination or modification of this agreement should not adversely affect anyone who acted in reliance on the terms of this MOU if it was in effect at the time of that action; i.e., when a particular project is terminated, all reports and investigations that were in progress should be handled under the provisions of the program until they are completed. If significant disputes arise between any of the signatory parties regarding the implementation of the terms of the MOU, the parties will meet to resolve their differences.

If the Project is determined to be successful after a comprehensive review and evaluation, the parties intend that it will be the basis for a continuing program, although not necessarily funded solely by WMATA.

## 15. Funding

Continuation of the Project is contingent on the future availability of WMATA funds.

## 16. Responsible Officials

The officials responsible for this MOU are WMATA's General Manager/Chief Executive Officer, Chief Safety Officer, Chief Operating Officer, the President/Business Agent of ATU/Local 689, the President/Business agent of IBT/Local 922 and the BTS Director.

The current holders of these positions have signed below. If during the term of this agreement any current holder leaves his or her position, the outgoing managers will inform their successors about the value of this Project.

## 17. Glossary of Terms

**Amalgamated Transit Union, Local 689 (ATU):** Labor organization that represents employees in the Chief Operating Officer, Chief Financial Officer, and Internal Business Operations directorates who are eligible to participate in the Close Call Program. Member of the Close Call Steering Committee and the Peer Review Team.

**Bureau of Transportation Statistics (BTS):** BTS is a federal statistical agency within the US Department of Transportation that serves as an independent third party that collects, analyzes, and maintains the confidential close call data collected for WMATA. BTS also identifies safety trends and emerging risks and writes and distributes publications to share this information with WMATA participants and the transit industry.

**Close Call Steering Committee (CCSC):** Developed and oversees implementation of the Close Call Program. Includes representatives from program stakeholders (WMATA, IBT, ATU, and BTS) and oversees the Close Call Program. Developed the program's Memorandum of Understanding. Coordinates with BTS and PRT to ensure consistency in the work products and other project documents.

**Confidential Information Protection and Statistical Efficiency Act (CIPSEA):** A statute which governs BTS confidentiality is the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). This statute prohibits disclosure or release, for non-statistical purposes, of information collected under a pledge of confidentiality. Under CIPSEA, data may not be released to unauthorized persons. Willful and knowing disclosure of protected data to unauthorized persons is a felony punishable by up to five years imprisonment and up to a \$250,000 fine.

**Chief Operating Officer (COO):** Directs the daily operation of Bus Services, Rail, Access Services, Support Services, Metro Transit Police, Design and Construction, Budget, Performance and Planning and Strategic Initiatives. ATU and IBT-represented and frontline supervisory employees of COO's organization are participants in the Close Call Program. Via participation on the CCSC, directs program implementation and provides budget for the program. Reviews and approves, if necessary, PRT's preventive safety actions and provide oversight for and direct implementation of approved preventive safety actions. In partnership with SAFE, tracks preventive safety actions taken in response to close call events.

**International Brotherhood of Teamsters, Local 922 (IBT):** Labor organization that represents employees in the BUS directorate who are eligible to participate in the Close Call Program. Member of the Close Call Steering Committee and the Peer Review Team.

**Peer Review Team (PRT):** The PRT consists of representatives from WMATA rail and transit infrastructure management, union officers and members, WMATA Safety, and BTS. It promotes the Close Call Program at WMATA, identifies why close calls occur, approves preventive safety actions, and evaluates the effectiveness of any such action that was implemented.

**Safety and Environmental Management Department (SAFE):** Ensures that WMATA's rail, bus and paratransit systems and other facilities are operationally safe and environmentally sound for all our employees, customers and surrounding communities. Manages and/or complies with policies and procedures in the areas of system safety, occupational safety and health, accident and incident investigation, the continuous hazard management process, internal safety audit process, oversight of construction safety, safety and security certification, environmental management, safety data and analysis, industrial hygiene, safety training, corporate safety programs, and corporate quality assurance. In partnership with COO, tracks preventive safety actions taken in response to close call events.

**Stakeholders:** The primary organizations that will be involved in the Project are: WMATA, L922, L689, and BTS.

**Washington Metropolitan Area Transit Authority (WMATA):** Transit agency participating in the Close Call program. WMATA works with the other stakeholders to implement the Close Call Program, review PRT reports, and take preventive actions in response to close call events.

**Execution**

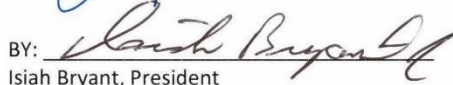
The parties signing below are authorized to execute this Memorandum of Understanding. This Memorandum of Understanding may be executed in counterparts, which shall have the full force and effect of an original document.

BY:   
Paul J. Wiedefeld, General Manager and Chief Executive Officer  
Washington Metropolitan Area Transit Authority

DATE: 8/7/18

BY:   
Jackie Jeter, President and Business Agent  
Amalgamated Transit Union, Local 689

DATE: July 23, 2018

BY:   
Isiah Bryant, President  
International Brotherhood of Teamsters, Local 922

DATE: 7/24/18

BY:   
Patricia Hu, Director,  
Bureau of Transportation Statistics  
Office of the Assistant Secretary for Research and Technology  
U.S. Department of Transportation

DATE: 7/25/2018

BY:   
Joseph Leader, Chief Operating Officer  
Washington Metropolitan Area Transit Authority

DATE: 7-23-18

BY: Patrick Lavin  
Patrick Lavin, Chief Safety Officer  
Washington Metropolitan Area Transit Authority

DATE: 7/25/2018

Reviewed for Legal Sufficiency:

Patricia Y. Lee

Patricia Y. Lee, WMATA General Counsel

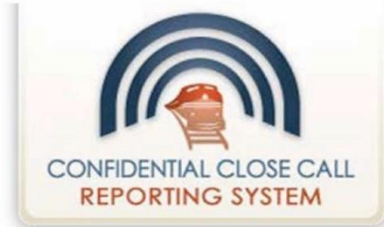
**Appendix A: Examples of Unsafe Rail Events That Could Qualify for Confidential, Non-Punitive, Close Call Safety Reporting at WMATA**

1. Station overrun of one door leaf or less
2. Split switch incidents
3. Speeding events
4. Improper flagging
5. Failing to blow the horn when required
6. Operating on the wrong track
7. Operating beyond authorized limits
8. Failure to protect adjacent track when necessary for safety
9. Non-compliance with roadway worker protection rules
10. Third rail or power-related incidents
11. Entering onto Roadway without following proper procedures

**Appendix B: Examples of Unsafe Bus Events That Could Qualify for Confidential, Non-Punitive, Close Call Safety Reporting at WMATA**

1. Unsafe bus turnaround areas
2. Near miss accident or incident with a bus due to blind spots or equipment issues
3. Speeding events, on the street or in the yard
4. Failing to blow the horn when required
5. Operating on the wrong side of the road
6. Not stopping at railroad crossing
7. Not using/improper use of Personal Protective Equipment (PPE) available
8. Improper use of tools/use of incorrect tool to get the job done
9. Facilities, housekeeping, infrastructure or equipment issues that may lead to an accident or incident
10. Other instances of non-compliance with safety rules, processes or procedures or taking shortcuts to stay on time or get the job done

# Massachusetts Bay Transportation Authority



## CONFIDENTIAL CLOSE CALL REPORTING SYSTEM IMPLEMENTING MEMORANDUM OF UNDERSTANDING (C<sup>3</sup>RS/IMOU) MBTA & KEOLIS

MAY 8, 2015



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## Article 1 Parties to C<sup>3</sup>RS/IMOU

- A. **Federal Railroad Administration (FRA):** an administration in the Department of Transportation charged with carrying out all railroad safety laws of the United States per 49 United States Code (USC) Section 103 and 49 Code of Federal Regulations (CFR) §1.89.
- B. **Massachusetts Bay Transportation Authority (MBTA):** primary owner of infrastructure, equipment and rail system over which Keolis operates. MBTA is responsible for oversight of Keolis operations pursuant to MBTA-Keolis amended and restated operating agreement of July 1, 2014.
- C. **Keolis Commuter Services (Keolis):** a common carrier railroad.
- D. **SMART United Transportation Union (SMART-UTU):** the duly recognized collective bargaining representative of the crafts of conductors, assistant conductors, assistant conductor trainees, and yardmasters, working within the boundaries of the Confidential Close Call Reporting Program
- E. **Brotherhood of Locomotive Engineers and Trainmen (BLET):** the duly recognized collective bargaining representative of the crafts of Keolis locomotive engineers, assistant engineers, and student engineers working within the boundaries of the Confidential Close Call Reporting Program.
- F. **American Train Dispatchers Association (ATDA):** the duly recognized collective bargaining representative of the craft of train dispatchers, assistant chief dispatchers, and customer service sign employees working within the boundaries of the Confidential Close Call Reporting Program.
- G. **Transportation Communications Union (TCU):** the duly recognized collective bargaining representative of the craft of Keolis block operators and train directors working within the boundaries of the Confidential Close Call Reporting Program.

## Article 2 Purpose

The Parties are voluntarily entering into this C<sup>3</sup>RS/IMOU with the intent to improve the safety of railroad operations

The objectives for close call reporting are:

- The accumulation of confidential data on currently unreported or underreported unsafe events,
- Event analysis of reported data by Peer Review Teams (PRT),

- Identification of corrective actions by the Parties to remedy identified safety hazards,
- Provision of assistance by FRA in its safety oversight role, and
- Publication of general trends and statistics by government agencies.

### **Article 3 Boundaries**

The boundaries of the C<sup>3</sup>RS program is the territory defined as all owned and/or controlled property by MBTA and operated by Keolis.

#### **Article 3.1 Applicability**

The C<sup>3</sup>RS/IMOU will apply to all Parties employed by Keolis/MBTA as described in Article 1, governed by those signatory to this IMOU, including employees in training or probationary status. Employees must submit an accepted C<sup>3</sup>RS report, subject to conditions specified in Article 7.1 of this C<sup>3</sup>RS/IMOU, to have protection from discipline from Keolis/MBTA and/or FRA civil enforcement. Additionally, Keolis/MBTA will be exempt from FRA civil enforcement under the same terms as these individuals for accepted C<sup>3</sup>RS reports. This C<sup>3</sup>RS/IMOU does not alter or modify any Collective Bargaining Agreement.

#### **Article 3.2 Other Covered Employees Tenant/Host Operations**

C<sup>3</sup>RS reports may be accepted from employees when they are operating within the boundaries of this IMOU, or when operating on another railroad that has an approved C<sup>3</sup>RS IMOU in effect. With respect to tenant/host C<sup>3</sup>RS operations, the host railroad's IMOU will govern tenant operations.

### **Article 4 Definitions**

**“Adverse Consequences”** The negative impacts that may result from a human error or systemic failure.

**“Close Call”** a reported close call that is an opportunity to improve safety practices in a situation or incident that has a potential for more serious *adverse consequences*. The reported close call represents a situation in which an ongoing sequence of events was stopped (except as outlined in Article 6.4) from developing further, preventing the occurrence of potentially serious safety-related consequences. Personal injuries do not fall into the category of a close call, and will continue to be reported and handled in accordance with the current Keolis rules and FRA regulations, or any subsequent revisions to Keolis rules and/or FRA regulations.

**"Consensus"** is the voluntary agreement of all representatives.

**“Control Center”** means the Commuter Rail Operation Control Center (North side) and Centralized Electrification Train Control Center (South side).

**“Corrective Actions”** action taken by Keolis/MBTA in response to the PRT's recommendations concerning emerging trends and reported safety events.

**“Discipline”** any Keolis action that would result in a materially adverse employment action like a suspension, termination, demotion, written warnings, written counseling, etc.

**“Event Recorder”** a device, designed to resist tampering, that monitors and records data on train movements, direction of motion, occupancy, record of protection, time, distance, video, and voice recordings, etc.

**“Electronic Train Monitoring Devices”** a technological device or methodology for remotely identifying abnormal events, such as engineer induced emergency application of brakes.

**“FRA-certified inspector”** any individual authorized by the Secretary of Transportation to enter, inspect and examine lands, buildings, and equipment on railroad property.

**“Hazardous material”** a commodity designated as a hazardous material by 49 CFR Part 172.

**“Immediate Co-Worker”** a member of the same train crew or work group. The determination, however, is not to be based merely on proximity, but on functionality as well. For example:

- An engineer, a passenger conductor, and assistant conductors working the same train would be immediate co-workers.
- A train crew conducting switching operations but separated from each other by distance, cars, etc., so that they are only in radio contact (i.e., not visual contact) are members of the same train crew.
- Yardmasters or employees from other crafts are immediate co-workers when they are directly or indirectly involved in an accepted reported event.

**“Need to Know”** government employees and contractors may have access to information only if it is necessary for close call program management and programmatic evaluation and analysis. This “need to know” will be administered by the National Aeronautical Space Administration (NASA) and permission granted by the NASA Program manager.

**“Real-Time Observation”** Keolis employee observations and/or testing conducted by Keolis supervisors, management or a FRA-certified inspector.

**“Train Accident Reporting Threshold”** as defined in 49 CFR Part 225 in regard to monetary reporting threshold.

## **Article 5 Confidentiality**

NASA shall act as the owner of the data reported by Keolis employee(s) under this C<sup>3</sup>RS/IMOU and shall protect the confidentiality of this information through its own governance.

After all relevant data about a reported close call event, including the C<sup>3</sup>RS report and all other information collected by NASA that is relevant to the reported event, have been compiled into a unified document, NASA will develop a de-identified document for further analysis by the Peer Review Team (PRT). NASA will de-identify this record so that the employee(s)'s identity, any third party reference, including anyone mentioned in the original C<sup>3</sup>RS report, can no longer be determined through direct or indirect means.

NASA shall protect the following information from disclosure when provided in a close call report:

1. The employee close call report form and the content of that form,
2. The name of the employee who submits a close call report,
3. The name of any other employee mentioned in the close call report,
4. The name of the railroad involved in the close call report, and
5. Information that would make it obvious that only a few (fewer than three), easily identifiable people could have made the close call report such as exact location and time of a close call, or description of specific, rarely used equipment models.
6. If NASA is unable to protect the confidentiality of the reporter, the report will not be forwarded to the PRT.

The confidentiality of the information collected during this Program will be preserved beyond the cancellation and/or end of this Program.

### **Article 5.1 Access to Confidential Data**

In the interest of providing the best measures for maintaining the confidentiality of the data, all internal NASA program staff will be granted access to confidential internal use data on a "need to know" basis and for the purposes of completing their work assignments. Internal Program staff includes NASA federal employees and NASA agents. For this Program, NASA agents may include NASA contractors assigned to this Program. The PRT assigned to this Program will have access to de-identified reports and PRT work products.

## Article 6 Reporting Procedures

When an employee of Keolis covered by this C<sup>3</sup>RS/IMOU, observes a safety problem or experiences a close call event, he or she should report the problem or event and describe it in detail to NASA. NASA has developed a close call report form that requests information about the date, time, location, contributing factors, actions taken, and potential consequences of an event, along with any other information necessary to fully describe the event or perceived safety problem. NASA has a process for electronic submission or download of report forms at: <http://c3rs.arc.nasa.gov/report/electronic.html>.

The close call form will be evaluated and de-identified by NASA. The de-identified information will be evaluated by the PRT. **A separate close call report form is required for each safety problem or close call event experienced during a tour of duty.** The employee will complete the report form, either paper or electronic, and submit it in accordance with the instructions on the form. NASA will mail a receipt to the employee.

The reporting of close call events is not intended to circumvent nor meant to be a substitute for any existing Keolis safety programs or reporting procedures. Rather, it is intended to be an additional tool for improving safety. Keolis will make forms available at work locations.

### Article 6.1 Criteria for Close Call Report Acceptance

Reports will be accepted for any condition or event that is perceived as potentially resulting in adverse consequences. Any concern about one's own safety or someone else's safety at work should be reported.

Each close call report must contain sufficiently detailed information about an event so NASA can evaluate it. An interviewer may call the employee(s) to obtain more information about the event. If in doubt, the interviewer will err on the side of accepting the report. NASA will conduct the first screening and the PRT the second screening.

The following types of reports shall be rejected during the initial screening process:

1. Any type of FRA reportable train accident/incident,
2. Any reported event that caused or is alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event,
3. Acts of sabotage and other willful acts or criminal offenses including use of alcohol and prohibited controlled substances,
4. An event resulting in an identifiable release of a hazardous material.

The following types of reports may be rejected during the initial screening process:

1. Reports that do not include sufficient information when the reporting employee(s) does not accept a follow-up call when contacted,
2. Reports unrelated to railroad safety,
3. Personal grievances, such as a rejected time slip or perception of unfairness by a supervisor.

**Article 6.2 Conditions Under Which a Reporting Employee is not Protected from Railroad Discipline and/or Revocation of Certification/Qualification and Other FRA Enforcement**

Keolis employees included in this C<sup>3</sup>RS/IMOU receive no protection from discipline, and FRA enforcement action when one or more of the following conditions occur:

1. The employee's action or lack of action was intended to damage Keolis or another entity's operations or equipment or to injure other individuals, or intentionally placed others in danger (for example, sabotage),
2. The employee's action or lack of action involved a criminal offense,
3. The employee's behavior involved substance abuse or inappropriate use of controlled substances,
4. The report is rejected in accordance with Article 6.1,
5. The event resulted in any type of FRA reportable train accident/incident,
6. The event caused or is alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event,
7. The event resulted in an identifiable release of a hazardous material,
8. The event is a real time observation by a Keolis employee or testing conducted by a Keolis supervisor, management or an FRA certified inspector.

FRA will also afford the same protection from enforcement action to Keolis/MBTA, as that afforded to an Keolis employee covered by this IMOU, for any incident for which an accepted close call report is filed. Likewise, if an employee report falls under one of the exceptions listed in Article 6.2 and the employee is not afforded protection, Keolis/MBTA will also not receive protection from FRA enforcement action.

### **Article 6.3 Time Limits to File Report and Receive Protection from Keolis Discipline and FRA Enforcement**

To receive protection from Keolis discipline and/or FRA enforcement, an employee with knowledge of the incident must submit a written (either paper or electronic) close call report to NASA within three business days (Monday – Friday), of the event. For example, an event that occurs at 3:00 a.m. on a Tuesday must be reported by 11:59 p.m. of that Friday. If the event occurs on Saturday at 3:00 a.m. it must be reported by 11:59 p.m. on Wednesday. Saturday and Sunday or Federally observed holidays are not included in the calculation of business days.

If NASA determines the initial report contains insufficient information to determine acceptance, the report may receive provisional acceptance. Final eligibility for receipt issuance will be determined when the NASA rail safety expert obtains more information from the employee. NASA may call the reporting employee for further information and the reporting employee is encouraged to provide information. If, based on evidence, the close call report is accepted as valid by NASA, a receipt is issued to the reporting employee via United States Postal Service.

Any record of such receipt will not be available in the NASA close calls reporting system. If an employee facing discipline has lost or misplaced the receipt, the reporting employee may request a verification letter from NASA. This letter will be provided whenever possible. However, there is no guarantee that NASA can provide a verification letter, since NASA does not store any identifying information about the employee who submitted the report.

### **Article 6.4 Special Criteria for Known Event Reporting**

This article does not modify Keolis incident investigation or Alcohol and Drug Testing policy, or supersede any OSHA requirements. Employees involved will provide written statements of incident when requested. This article does not include or cover events that are part of real time observations by a Keolis employee or operational testing conducted by Keolis supervisor, management or an FRA certified inspector.

Events involving damage or derailment below the FRA reporting threshold that do not involve an injury and require managerial notification and/or protection shall be considered close call events. Events such as, but not limited to run through switches and on board electronic monitoring devices activations are examples of close call events. Keolis agrees it will not initiate any discipline for an event reported and accepted as a close call.

To facilitate analysis of such events, the employee will provide notification of the event to Keolis without undue delay and then file a C<sup>3</sup>RS report. A C<sup>3</sup>RS report will be completed and submitted to NASA within the time limits set forth in Article 6.3.

NASA will provide a receipt for the close call report as proof of an accepted report. The employee must allow Keolis to review the receipt, when requested.

## **Article 7 Purpose for Protection from Keolis Discipline and FRA Enforcement**

The main purpose of this close call reporting system is for the participating Parties to learn more about the safety risks they face. An important element of the Program is the shielding of employee(s) from Keolis discipline and/or FRA enforcement potentially arising from events reported under this system. An additional concern is the need to also shield Keolis from FRA enforcement potentially arising from events reported under this system.

Confidential close call reporting protects the identity of the person disclosing information. The PRT is able to use the information to learn about systemic problems and to educate all Parties. The reporting of close calls will foster an environment that enables the Parties involved to understand systemic failures and implement improvement opportunities.

### **Article 7.1 Conditions under Which a Reporting Employee(s) is Protected from Keolis Discipline and FRA Enforcement**

Except as provided in Article 6.2, Keolis employees included in this C<sup>3</sup>RS/IMOU who report close calls or who are involved in the reported event in accordance with Article 6 will be protected from discipline and/or decertification by Keolis provided an appropriate FRA waiver has been granted.

FRA will not require Keolis to revoke the certification of the employees if the event meets both of the following two conditions:

1. The employee's action or lack of action was not intended to cause damage and/or injury to Keolis operations, equipment, or personnel; and
2. The employee reports the close call event within the time limits set forth in Articles 6.3 and 6.4, and the report is accepted as provided in Article 6.1.

Employee protection from Keolis discipline requires that the same above two conditions apply.

Employees who file an accepted close call report are protected from discipline and/or decertification by Keolis and from other FRA enforcement arising from the retrospective discovery of events involving violations of operating practices involving the event reported. This includes the retrospective (as opposed to real-time) use or review of event recorder data.

All employees covered by this C<sup>3</sup>RS/IMOU that are involved in a close call event will be afforded the same protection as long as at least one immediate co-worker filed an accepted close call report.

Keolis and FRA are prohibited from using any information contained in a close call report to pursue or defend any disciplinary or enforcement actions.

All parties to this IMOU understand that this data is also protected and must not be used for any purpose other than PRT analysis and development of corrective actions. Each of the PRT members will be trained on confidentiality and agree not to disclose or discuss close call case details outside PRT meetings.

*Note: If FRA grants the waiver petitions in question, copies of the FRA's decision letters will be attached to this IMOU and incorporated by reference.*

#### **Article 7.2 Conditions under Which Keolis/MBTA is protected from FRA Enforcement**

FRA will also afford the same protection from enforcement action to Keolis/MBTA, as that afforded to an Keolis employee covered by this IMOU, for any incident for which an accepted close call report is filed. Likewise, if an employee report falls under one of the exceptions listed in Article 6.2 and the employee is not afforded protection, Keolis/MBTA will also not receive protection from FRA enforcement action.

#### **Article 7.3 Conditions that are required for Real-Time Observations**

When a real-time observation is made by a Keolis manager or supervisor under Article 6.2 item 8, the employee must be informed of the observed/witnessed violation as soon as possible, but not to exceed two hours from the time of the observation/witness of event.

An event may also be considered a real-time observation upon notification by an observing FRA-certified inspector to the employee(s) and/or the railroad as soon as possible after observing a rules violation. The FRA-certified inspector will document the time, date, location, and a description of the rules violation observed on a FRA Inspection Report (6180.96 report). The FRA-certified inspector will provide a copy of the Inspection Report to the appropriate railroad officer preferably on the same day, but no later than 24 hours after observing the rules violation.

#### **Article 8 How Employee(s) Notify Keolis or FRA of Protection from Discipline or FRA Enforcement**

When Keolis initiates an investigation of an unsafe event or condition and an employee(s) indicates that the event or condition has been reported in accordance with the C<sup>3</sup>RS/IMOU, the time limits for pursuing discipline will be put in abeyance if necessary, pending a confirmation receipt from NASA.

When a receipt is available for review it will be presented to the railroad manager. If the Keolis manager is able to determine that the receipt is applicable to the event, the investigation will be closed.

If the Parties do not agree that the receipt is applicable to the event, the employee(s) will present a copy of the receipt to the PRT, who will then accept or reject the receipt as proof

of an accepted report of the event in question. If the PRT accepts the receipt, the investigation will be closed.

If the PRT rejects the receipt, the Keolis manager will be advised and the time limits for initiating disciplinary proceedings may commence. In such cases, neither party may use nor reference the close call report in the subsequent disciplinary proceedings.

Upon receiving notice of FRA civil enforcement for an event covered by an accepted close call report, the employee(s) will present the receipt to the FRA for assistance in resolving the notice consistent with this IMOU.

#### **Article 9 Use of Data**

All participants in this C<sup>3</sup>RS/IMOU agree to use the information they acquire only for positive purposes to improve railroad safety. This could include new or modified training, assessing risk and allocating resources to address those risks, and learning why these close calls are taking place.

#### **Article 10 Reserved**

#### **Article 11 Stakeholders**

The primary organizations that will be involved in the Program are:

- FRA's Office of Railroad Safety,
- MBTA,
- Keolis,
- NASA,
- SMART-UTU,
- BLET,
- ATDA,
- TCU,
- Peer Review Team (PRT),
- Support Team.

#### **Article 12 Stakeholders' Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The rights, roles, and responsibilities set forth in this C<sup>3</sup>RS/IMOU apply only to participants in the C<sup>3</sup>RS Program pursuant to any IMOUs that are approved by the FRA. If the Program involves a waiver of any FRA rules, the Parties shall submit a waiver request under 49 CFR § 211.41. In granting the waiver request, the FRA Railroad Safety Board may impose conditions necessary to assure safety.

### **Article 12.1 FRA's Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The FRA will oversee the scope and quality of the work. Experience gained from other modes has indicated that the willingness of persons to submit a close call report depends to a large degree on preserving the confidentiality of Keolis, the reporting employee(s), and immediate co-workers named in those reports. FRA will not seek, and NASA will not release to FRA, any information that might reveal the identity of such persons, organizations, locations or events mentioned in close call reports.

Specific FRA responsibilities include the following activities:

- Fund the C<sup>3</sup>RS Program if Congress appropriates funds for the Program. The duration of the Program is dependent upon continued Congressional funding. As provided in Article 14, any party may terminate their participation in the Program at any time.
- FRA may assign personnel to assist the PRT to analyze and summarize emerging trends, as well as to recommend corrective actions.

### **Article 12.2 NASA Responsibility in Support of the C<sup>3</sup>RS/IMOU**

NASA responsibility in support of the IMOU is to manage the close call reporting system and protect the confidentiality of the data. FRA will work with NASA to ensure its responsibilities outlined in Article 5 and 5.1 are fulfilled. NASA's responsibility to protect the confidential information as outlined in this IMOU will be governed by a separate Interagency Agreement (IA) between FRA and NASA providing for the development of a railroad safety reporting system. The performance of this IMOU is contingent upon the continuation of the IA between FRA and NASA.

### **Article 12.3 Keolis/MBTA Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

Keolis/MBTA shall not have any access to nor seek any NASA data that might reveal the identity of employee(s) or individuals mentioned in a close call report. By participating in the C<sup>3</sup>RS Program, Keolis/MBTA will:

- Commit to the support and use of the close call reporting system at all levels of the organizations,
- Consult on the high-level implementation plan with all Keolis/MBTA's Senior Managers,
- Ensure Keolis/MBTA senior management and supervisors cannot preempt their respective representative's decision-making discretion for an event reported,

- Use the information collected from the close call Program for the purpose of improving safety. Keolis/MBTA agrees not to use the information reported for the purpose of disciplining or disqualification of employee(s) except for those circumstances covered in Article 6.1,
- Use the PRT recommended corrective actions to evaluate and implement corrective actions in a timely manner as recommended by a consensus of the PRT and the PRT Support Team,
- Develop a communications plan for sharing findings with its employee(s) in order to help achieve success in this Program.
- Fund labor representative's participation on the PRT at the rate of one basic day at the current governing rate of the crafts represented per day worked. When needed, travel expenses will be reimbursed or paid by Keolis/MBTA.

#### **Article 12.4 Labor Union(s) Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

By participating in the C<sup>3</sup>RS Program, labor unions signatory to this IMOU shall have the following responsibilities:

- Commit to and promote use of the close call reporting system at all levels of the organization,
- Appoint representatives to participate on the PRT, and
- Participate on the PRT to analyze and summarize emerging trends as well as recommend corrective actions.

#### **Article 12.5 Peer Review Team's Responsibilities in Support of the C<sup>3</sup>RS/IMOU**

The PRT is a multi-stakeholder problem solving team that consists of individuals from the primary stakeholders (Keolis/MBTA, Labor and FRA) who represent their constituency's perspectives in forming a comprehensive view of close call events. The PRT will be composed of an equal number of representatives from Keolis/MBTA management and the labor organizations, and one representative from the FRA. As necessary and appropriate, the PRT may draw subject matter experts from the crafts, Keolis/MBTA management and/or FRA to assist in problem solving. Continuity of the PRT membership is essential for success. A representative from NASA may also participate on the PRT.

The PRT will develop a handbook for PRT governance and succession planning. The PRT can change the handbook as conditions warrant.

The PRT will meet on a required basis, after agreeing to a schedule that considers the availability of PRT members. PRT will determine the resources available for the PRT size. Meeting frequency will be adjusted by the PRT as needed.

Its primary responsibilities include:

Analyze close call event reports:

- Analyze each close call report after the identifying information has been removed and determine the root causes of the reported incidents,
- Generate and distribute feedback on close calls, emerging trends, and newly identified risks,
- Send proposed corrective action recommendations and/or presentations to management,
- Follow-up on the effectiveness of implemented corrective actions.

Identify and analyze multiple reports:

- Identify and analyze emerging patterns or trends in close calls, relate those to corrective actions taken by Keolis, and advise and assist with the implementation of corrective actions,
- Review and discuss a summary report comprised of the individual close call reports, emerging trends, identified root causes, and suggested corrective actions. Assess the association between emerging patterns or trends in close calls and relate those to corrective actions taken by Keolis,

The PRT will function using, but not limited to the following guidelines:

- The PRT conducts business only when a quorum is present. A quorum is defined within the PRT handbook,
- The primary stakeholders on the PRT are encouraged to consult with their peers or industry experts for guidance on complex or sensitive matters – where more information is desired to make an informed decision. The use of subject matter experts is encouraged,
- The PRT will conduct its own event analysis driven by the NASA report,
- Each representative is empowered to offer possible sources of risk, error recovery mechanisms, and corrective actions. Diverse perspectives are expected and encouraged. The PRT's opinions reflect a collaborative decision-making process among all PRT representatives,

- The PRT makes its decisions using consensus when assigning root causes and proposing corrective actions. It does not require that all members believe that a particular decision is the best one. Instead, all representatives' positions are given a proper hearing and are addressed, and a decision is one that all can accept,
- In support of Article 3.2, PRT's involved with tenant/host operations agree to meet as often as needed and work collaboratively on cases that require corrective action measures by the host railroad. Both PRT's agree to function in the spirit of open dialogue, freely exchanging close call data in the interest of improving railroad safety on their respective railroads,
- If there is a dispute concerning the application of this IMOU, the Parties signatory to this C<sup>3</sup>RS/IMOU are encouraged to use interest based problem solving techniques to resolve the matter internally. If the Parties are unable to resolve the matter internally, they may contact the FRA C<sup>3</sup>RS implementation team for assistance.
- The PRT will protect the confidentiality of the reporting employee(s). The PRT will not disclose any information that would make it possible to identify the reporting employee(s) mentioned in the close call report to any person or entity. All Parties also agree to protect the confidentiality of any and all data, analysis, findings and recommendations related to this IMOU. The confidentiality of this information will survive in perpetuity.

#### **Article 12.6 PRT Support Team Roles and Responsibilities**

The PRT Support Team will consist of individuals from the Keolis/MBTA appointed representatives, as well as representatives from FRA and labor organizations when requested.

Their responsibilities will include:

- Support the PRT during implementation and provide continuing project oversight,
- Evaluate and implement corrective actions recommended by the PRT in a timely manner,
- Review PRT decisions and provide feedback to stakeholders,
- Keolis/MBTA's appointed representative on PRT Support Team will report corrective actions implemented to PRT or report why no action was taken. The Keolis/MBTA's representative will also report on the measured effectiveness of corrective actions to PRT.

**Article 12.7 Reserved**

**Article 13 Modifications**

Modifications to this C<sup>3</sup>RS/IMOU may be proposed at any time during the period of performance by any party to the C<sup>3</sup>RS/IMOU, and shall become effective upon written approval by all parties.

**Article 14 Program Duration/Employee(s) Protections**

This C<sup>3</sup>RS/IMOU will be in effect until cancelled as outlined below. Cancellation of participation is subject to the following restrictions:

- Parties to this C<sup>3</sup>RS/IMOU may cancel their respective participation with a 45 day written notice,
- The termination or modification of the Program will not adversely affect anyone who acted in compliance with the terms of the Program in effect at the time of that action; i.e., if the C<sup>3</sup>RS/IMOU is terminated, all reports and investigations that were in progress will be handled under the provisions of the Program until they are completed. Employee(s) reporting under this Program will remain protected from Keolis discipline and/or FRA enforcement for reported events,
- Should any party serve the appropriate cancellation notice, all Parties commit to meet within the 45-day period to seek resolution,
- The confidentiality provided by this agreement survives its cancellation,

**Article 15 Record Keeping**

To ensure compliance, all records and documents relating to this Program, including any documentation from the PRT, shall be kept in a manner prescribed by Keolis.

**Article 16 C<sup>3</sup>RS/IMOU Signatures**

The Parties below approve this Implementing Memorandum of Agreement and the principles of the Confidential Close Call Reporting System.

\_\_\_\_\_  
Bradley Kesler  
Chief Railroad Officer - MBTA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Ronald W. Nickle  
Chief Safety Officer - MBTA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Gerald C. Francis  
General Manager – Keolis

\_\_\_\_\_  
Date

\_\_\_\_\_  
Justin R. Vonashek  
Chief Safety and Security Officer - Keolis

\_\_\_\_\_  
Date

\_\_\_\_\_  
Joseph A. Parker  
General Chairman - ATDA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Arthur Maratea  
National Vice President - TCU

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mark B. Kenny  
General Chairman - BLET

\_\_\_\_\_  
Date

\_\_\_\_\_  
Dirk Sampson  
General Chairman – SMART-UTU GO-769

\_\_\_\_\_  
Date

\_\_\_\_\_  
Robert C. Lauby  
FRA Associate Administrator for Railroad Safety/  
Chief Safety Officer

\_\_\_\_\_  
Date

# Appendix D – Example Policies and Procedures

## LA Metro Safety Policy Statement

### System Safety Program Plan

#### METRO SYSTEM SAFETY POLICY STATEMENT

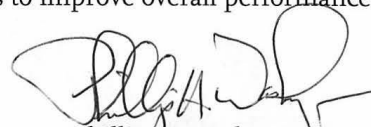
The Los Angeles County Metropolitan Transportation Authority (Metro) has adopted as its guiding principles that “Safety’s 1<sup>st</sup> for our customers, employees, and business partners.” This means that safety takes a pre-eminent role in decision making before all other considerations. This System Safety Program Plan (*SSPP*) is the means of integrating safety into all Metro rail system operations. Through the use of the procedures contained in the *SSPP*, we can achieve an optimal level of safety in our operations and services.

The *SSPP* establishes mechanisms for identifying and addressing hazards associated with the Metro rail system. It also provides a means of ensuring that proposed system modifications are implemented with thorough evaluation of their potential affect on safety.

Each department has responsibilities under the *SSPP* and shall support its implementation. Departments also shall provide the on-going support necessary for achievement of *SSPP* objectives. Individual employees have responsibilities under the *SSPP*, and supervisors and managers must enforce the safety requirements pertaining to their employees. A key to the success of the *SSPP* is for employees to be aware that they are accountable for meeting the safety requirements of their positions. Beyond this, its success depends on all employees actively identifying potential hazards and taking into consideration the safety of others as well as their own. All employees have an obligation to report hazards, and near miss incidents to their department management, and may do so without fear of reprisal.

The safety department is responsible for developing, administering and implementing a comprehensive *SSPP* with specific goals and objectives, purposes, programs and activities to prevent, control and resolve unsafe conditions/hazards that may occur during the life cycle of the rail systems. The safety department will be involved in all systems, beginning from the conceptual stage, and through the design, procurement, and operational stages.

We must appreciate the fact that our decisions and actions often affect the safety of those in other operations. By following the processes described in the *SSPP*, we will have continued opportunities to improve overall performance and safety.



Phillip A. Washington  
Chief Executive Officer

## **Washington Metropolitan Area Transit Authority**

### **Supply and Service Contract RFP CQ19017**

#### **2.67 ARTICLE 67- SAFETY REQUIREMENTS**

- 2.67.1 The Contractor shall be responsible for ensuring compliance with the most stringent provisions of the applicable statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision where the work is being performed, as well as the METRO Construction Safety and Environmental Manual (1984, as amended) issued by WMATA, and the U.S. Department of Labor OSHA standards pertaining to the safe performance of the work. In the absence of a specific construction industry standard, the Contractor is required to comply with either an established OSHA General Industry Standard, National Institute for Occupational Safety and Health (NIOSH) guidelines, American Conference of Governmental Industrial Hygienists (ACGIH) guidelines, American National Standards Institute (ANSI) guidelines, the WMATA System Safety Program Plan, and, where specified, the WMATA Construction Safety and Environmental Manual and the Metrorail Safety Rules and Procedures Handbook. For contracts where work will be performed on, or will interface with the Metrorail System, the Contractor must comply with the publication entitled "Roadway Worker Protection Manual." In the event of a conflict between these guidelines and applicable Federal, State or local health and safety laws, regulations or standards, the more stringent standard shall apply. Further, the Contractor shall ensure that all methods of performing the work do not involve danger to the personnel working at the site, and the public and private property, whether or not these methods are cited or indicated in the Contract. The Contractor shall immediately provide to the Contracting Officer, a copy of all citations and/or warnings of safety violations received from any Federal, State or local jurisdiction or agency thereof, and/or all notifications of safety violations from insurance companies. The Contractor shall also provide to the Contracting Officer, copies of any and all subpoenas, complaints or other documents relating to any lawsuit alleging safety violations.
- 2.67.2 The contractor must follow all federal safety requirement to include but not limited to: 49CFR 625, 49CFR Part 40, 49CFR Part 655, 49CFR 659, and 49CFR 673.
- 2.67.3 The Contractor shall employ and assign a full-time Safety Superintendent for Contracts involving "safety sensitive" functions. (See Combined Glossary attached hereto for a definition). The Safety Superintendent shall hold an OSHA thirty (30) hour course card. He or she shall have the ability to develop and conduct safety training courses. He or she shall be familiar with industrial hygiene equipment and testing as required for the protection of all employees. The Safety Superintendent shall be employed exclusively for the purpose of supervising the safety of persons on or about the worksite and the property affected thereby. The Safety Superintendent shall also be responsible for providing first aid at the worksite and must have a current Red Cross First Aid Certificate. The Contractor shall notify the Contracting Officer a reasonable amount of time beforehand, any time that the Safety Superintendent will not be on site during work hours. The Safety Superintendent must be acceptable to the Contracting Officer and his or her performance will be reviewed on a continuing basis. If the Safety Superintendent's effectiveness is below standard, the Contractor shall provide immediate replacement at the Contracting Officer's direction. Once employed, the Safety Superintendent shall not be changed without the Contracting Officer's permission. The Safety Superintendent can be terminated at any time, at the Contracting Officer's discretion.
- 2.67.4 The Contractor shall provide, at the site of the work, a first aid kit which shall be fully equipped to meet the needs of the anticipated work force.
- 2.67.5 Where specified, the Contractor shall follow all appropriate RAIL Operational Rules, Operational Administrative Procedures (OAPs), Standard Operational Procedures (SOPs) and General and Special Orders while on the operational railroad and all Start-Up Rules and Manager's Notices when in declared start-up areas.

# SEPTA Collective Bargaining Agreement

## Article XI – Productivity

### Section 1101. Productivity

(a) The safe, efficient and economical operation of the Authority is a major concern of the public, the Authority, the employees and the Union. The Authority and Union recognize that the public, whose support and patronage is essential, is entitled to reliable and economically and efficiently operated and maintained fleets of passenger vehicles, rights of way, plant and equipment and, therefore, Joint Productivity Committees are hereby established in each of the following Operating Units.

1. Bus, Streetcar and Trackless Trolley Vehicle and Equipment Maintenance.
2. High Speed Vehicle Maintenance.
3. Facilities and Equipment Maintenance.
4. Surface and High-Speed Transportation.

(b) The objectives of the Joint Productivity Committees are to cooperate in working towards achieving as promptly as possible the most efficient and economical utilization of work forces and facilities and to achieve significantly higher productivity than has occurred in the past in each of the Authority's operations listed above. It is recognized that such desired productivity depends in great part on the fairness and effectiveness of supervision, the provisions of adequate workspace, tools and equipment for employees, and the good faith cooperation by the employees and their Union representatives with the representatives of the Authority in the attainment of this essential goal. The Committees and each member thereof is charged with the responsibility of positively and cooperatively advising Management concerning ways and means of improving productivity. Representatives should endeavor to identify those problems adversely affecting productivity and address themselves to the solution of those problems in order of priority. Solutions will be sought which will advance the objectives set forth above. In order to do this the Committee will review all practices and procedures affecting the utilization of employees, adequacy of materials, tools, facilities and workspace available to employees, workloads and productivity of employees, and other practices, procedures or circumstances which affect the safe, economical and efficient operation of the Authority, including all questions and grievances concerning Section 431 of the Agreement. The Committees will endeavor to make positive recommendations concerning such matters, among others, as maximizing use of time and facilities, reducing equipment breakdowns and delay, improving quality, reducing the need for rework, eliminating waste of material, supplies and equipment, reducing overtime, boosting employee morale, improving safety and focusing employee awareness on the need for significantly higher productivity.

(c) Each committee shall consist of two (2) members selected by the Union and two (2) members selected by the Authority. The Assistant General Manager for Operations and the President of Local 234 shall serve ex-officio as members of the Committees. The Committees shall meet at mutually agreeable times, but no less than once a month. The method of organizing these Committees and coordination between the Committees may be changed from time-to-time by mutual agreement.

(d) The establishment of these Committees shall not affect the existing rights of either party under other provisions of this Agreement and shall assist, rather than in any way limit, the Authority's right to direct the work force. If either the Authority or Union Committee member believe that a Committee is not functioning to achieve significantly higher productivity, they may communicate this fact to the Manager of the Authority.

(e) The Authority and Union will develop pay for performance programs such as rewarding on time performance, claims reduction, attendance, rider report score, reductions in passenger complaints and revenue increase and cost reduction sharing.

### Section 1102. Health and Safety

The Authority and the Union agree that the safety of its employees and the riding public is of paramount importance to the successful accomplishment of the mission of providing transit service to the citizens of the region. Therefore, the Authority and the Union agree to work together to establish joint health, safety, workers' compensation and accident/personal injury claims cost containment programs that will maximize the safety and health of the Authority's employees, passengers, and visitors while simultaneously protecting SEPT A's facilities and equipment.

The Authority will abide by applicable Federal, State and Local laws, and make available protective equipment required by such laws. Prevailing occupational health and safety standards will be used in determining the presence of health hazards or unsafe conditions in the workplace.

In accordance with this section, the parties agree that in response to the Pennsylvania Department of Transportation's request that the Authority adopt limits on hours of service, the issue will be referred to and considered by the Joint Health and Safety Committee, with the mutual intent of developing an appropriate standard to replace the interim policy addressing this issue.

The Authority and the Union will continue to develop and implement a comprehensive health and safety program, including at a minimum, the Joint and Location Health and Safety Committees, hazard identification and correction procedures, employee training and education, and safety awards and rewards programs; and under the policy direction of the Joint Health and Safety Committee, Workers' Compensation and accident/personal injury claims cost containment programs.

The following provisions regarding the JHSC and LSCs shall govern the establishment, operation and duties of such committees which shall act jointly for all three divisions of the Authority (CTD, Frontier and Victory) represented by Local 234. The provisions regarding safety incentive programs similarly shall govern the rights and entitlements of employees in all three of the same divisions on a joint basis.

**I. Joint Health and Safety Committee (JHSC)**

A. There shall be an Authority and Union Joint Health and Safety Committee. Each party shall appoint a Co-Chair for the Committee. The President of the Union may appoint at least two (2) staff members, plus five (5) rank-and-file employee members. All members should have prior experience as a Location Safety Committee member as well as knowledge, familiarity, and experience in the operating environment. Members must have demonstrated a good record in attendance, discipline, safety, and accident prevention. The Union's Chairperson shall be responsible for overseeing the Union's commitment to the Committee. The Chief Officer of Safety and Risk Management will serve as the Authority's Co-Chair. Permanent Authority members of the Committee will also include the Chief Bus Operations Officer, the Chief Subway/Light Rail Operations Officer, the Chief Engineer, and the Director/ Assistant Director of System Safety. Representatives of System Safety, Workers' Compensation, Claims, Medical and other departments will attend as required by issues scheduled on the agenda.

B. The functions of the Joint Health and Safety Committee will be as follows:

1. Establish mutual goals to reduce health hazards in the workplace, occupational injuries, vehicle accidents, and passenger claims.
2. Working pursuant to the policy direction of the Joint Labor-Management Accident Reduction Committee, establish pro-active programs with employees to:
  - (a) Keep the maximum number of employees injury-free and productive.
  - (b) Reduce the number and severity of accidents.
  - (c) Insure employees receive prompt and complete medical attention and follow-up.
  - (d) Return injured employees to full duty as soon as possible.
3. Conduct annual training of new location safety committee members to ensure familiarity with processes, procedures and current issues.
4. Conduct periodic evaluations to assess progress toward committee goals and develop means to evaluate Location Safety Committee performance.
5. Make periodic inspections of Authority vehicles and/or facilities in accordance with Authority rules and regulations, and promptly report hazardous conditions.
6. Provide guidance, direction and support to the Location Safety Committees, and work to resolve complaints they are unable to resolve.

C. Joint Health and Safety Committee meetings will be scheduled at least once a month. Seven (7) days prior to the monthly meeting, the Co-Chairs of the Committee shall exchange a written agenda or list of items to be discussed at the meeting. The minutes as reported by the Authority will address items discussed by the parties at the meeting.

D. The Authority agrees to share with the Union accident and injury statistics, final reports on accidents, workplace environmental test results, and reasonable requests for information related to agenda items that are legitimate subjects for discussion at Joint Health and Safety Committee meetings, provided this information is not privileged information, i.e., restricted under doctor/patient or lawyer/client relationships.

E. The Authority will pay each Union committee member at his/her regular rate of pay, the equivalent of one (1) eight (8) hour day per month, for their attendance at the Joint Health and Safety Committee meeting and for performing safety-related work assigned to them by the Union.

F. As part of the Joint Health and Safety Program, the Authority will make forms available to all employees to report safety hazards in the workplace. Such forms will be placed at locations determined by the Joint Health and Safety Committee and location committees.

G. The Committee recognizes that under certain circumstances, the presence of employees who are not regular members of the Committee would be useful in the Committee's deliberations. The invitee(s) will be mutually agreed to by the Co-Chairs and such requests will be made a minimum of seven (7) days prior to a scheduled meeting.

H. Proposed changes or additions to the Joint Health and Safety Program must be submitted to the Joint Health and Safety Committee for review and approval.

## **II. Location Health and Safety Committees (LSCs)**

A. Location Health and Safety Committees (LSC) will be established at designated Authority locations. The number of Union personnel assigned to each LSC will be determined by the following formula: (1) Transportation: one (1) member for every one-hundred (1 00) authorized heads, or portion thereof, at the location, and (2) Maintenance: one (1) member for every fifty (50) authorized heads, or portion thereof, at the location, provided that there be a minimum of two (2) union representatives on each LSC, or a minimum of three (3) in locations with more than 100 employees. The Union may determine the mix of maintenance and transportation representatives on each LSC, provided that there shall be at least one (1) Maintenance representative on each LSC for locations with at least fifty (50) authorized Maintenance heads and at least one (1) Transportation representative on each LSC for locations with at least one hundred (100) authorized Transportation heads. Management will be represented at LSC meetings by the Director or Assistant Director of Transportation, the Director or Assistant Director of Maintenance, and the Buildings Foreman, or their respective equivalents. Committee meetings will be held once per month, with an agenda composed of safety and accident reduction topics. Committee meetings will be held monthly and will be chaired by a facilitator chosen by the Location Safety Committee. Any change to the structure of the committee must be agreed upon by the Co-Chairs of the Joint Health and Safety Committee.

B. Location Health and Safety Committees are advocates for improved safety and health conditions and workers' compensation and accident/personal injury claims cost containment in their locations. The functions/goals of the Location Health and Safety Committees under the direction of the Joint Health and Safety Committee will include:

1. Setting goals and developing programs to reduce workers' compensation claims and liabilities as well as accidents and personal injury claims.
2. Identifying, evaluating and recommending controls for safety and health hazards in the workplace.
3. Promoting safety and health education in the location.
4. Making periodic inspections of facilities and/or vehicles in accordance with Authority rules and regulations and promptly reporting hazardous conditions.
5. Making recommendations for employee safety and health training programs.
6. Assisting management by ensuring compliance with safety procedures such as Personal Protective Equipment (PPE) which are applicable to that particular location committee.
7. Involving pro-active participation by the Union in all of the above.

C. Rank-and-file members of the Location Health and Safety Committees are selected by the Union from a list of volunteers solicited jointly. When selecting committee members, the Union will consider the employee's safety, discipline, attendance, and accident history/record. Members should have knowledge, familiarity and experience in the operating environment. The Authority agrees to pay Union rank and file members to attend location committee meetings at their regular rate of pay, for one meeting per month. Periodically, additional assignments may be made or meetings held by the Location Safety Committee, provided that the responsible JHSC co-chairs mutually agree.

D. Periodic meetings between the Joint Health and Safety Committee and a representative of each Location Health and Safety Committee to guide, train, identify problems and evaluate the performance of the location committees will be scheduled by mutual agreement of the Co-Chairs of the Joint Health and Safety Committee.

## **III. Education and Training**

A. The Authority and the Union recognize employee training and education as a critical element in safety, health, and claim reduction programs. The Authority agrees to provide such education to all of its employees on a regular basis. In determining what training is required, requests will be considered from the following sources: the Joint Labor-Management Committee, the Joint and Location Health and Safety Committees, the Union staff, Section Officers and location management personnel.

B. Training topics will also be based on a review of location accident and injury statistics and the findings of hazard identification observations. The topics and frequency of the training will depend upon the individual accident experience of a location and requests of the location safety committees. Upon request by the Union, the Authority will pay the cost for the publication and distribution to employees of safety related literature such as brochures, leaflets, and booklets.

C. In conjunction with employee identification of safety and health hazards, the Authority will train Location Health and Safety Committee members in the techniques of health and safety hazard identification, evaluation and control.

#### **IV. Safety Awards Program**

The Safety Award program has been established in order to recognize employees who have maintained safety practices and attendance procedures in the workplace for the calendar year. A Safety Awards Banquet will be held for eligible employees, as described below. All eligible employees who meet the criteria below will receive, on an annual basis, beginning with the tenth year of eligibility, a Safety Award of \$20 for each year of service in which they meet the following criteria:

A. The Rules and Guidelines will apply to the following groups of employees:

- Transportation
- Vehicle Maintenance
- Revenue Maintenance
- Line/Station Maintenance, i.e., Buildings, Facilities, Track and Power workers
- Subway Elevated Train Operators
- Towerpersons and Yardpersons
- Station Attendant
- Subway Elevated Cashier

B. Terms & Definitions

1. Eligible Year: A year in which the employee remains free of the infractions listed in Sections C. and D. An eligible year advances the employee's accumulated safe years by one ( 1 ).
2. Grace Year: Neutral effect in establishing the number of consecutive safe years.
3. Ineligible: Loss of all accumulated safe years, i.e., employee reverts to zero safe years or stays at zero safe years.

C. Attendance Disqualifications

1. At a minimum, eligibility for the safety award requires that an employee have no more than 30 days of absences for any reason other than those listed in (2) below.
2. Employees disqualified for failing to satisfy (1) above will be graced for as long as they are in the following positions:
  - (a) Management Trainee (Dispatcher, Instructor, Supervisor, Clerk Receiver, Backfill Foreperson, etc.)
  - (b) Military Leave
  - (c) Jury Duty
  - (d) Union Leave, i.e., Union Staff, Section Officers, and LSC members, etc.
  - (e) United Way

D. Accident and Work Safety Disqualifications

1. A chargeable or preventable traffic accident committed by a transportation employee.
2. A switch, signal or work zone violation committed by a Subway Elevated or Light Rail Transportation or Vehicle Maintenance employee.

3. A Maintenance employee, Cashier, Stationperson, Yardperson, or Towerperson who misses more than a day's work as a result of an on-the-job injury. A Transportation employee who misses more than five (5) days work as a result of an on-the-job injury.
4. Any Maintenance employee involved in an accident causing injury or damage to Authority property.
5. Any type of safety-related discipline including verbal warnings for an unsafe work practice.
6. Any Stationperson who receives any type of discipline including reinstructions for lack of proper safety equipment; failure to be at one's assigned work location or a verified safety-related complaint from a rider.
7. Any Towerperson who receives any type of safety related discipline including reinstructions for (1) setting a "wrong route" or (2) directing a train onto an occupied track.
8. Any Cashier who receives a verified safety related complaint from a rider.

NOTE: Any employee injured as a result of an assault while on duty, who complies with SEPTA medical policies, will be placed in Grace until they are able to return.

**E. Effect on Prior Years of Eligibility**

1. 0 Through 4 Safe Years: Employees with less than five consecutive years of eligibility who commit a disqualifying infraction listed in Sections C. and D. above will be deemed ineligible and lose all accumulated safe years
2. 5 Through 9 Safe Years: Employees with less than ten years of eligibility will be graced for one year as a result of having committed any of the disqualifying infractions listed in Sections C. and D. above. If an employee with less than ten eligible years has a disqualifying infraction listed in Sections C. and D. above after having been graced in a prior year, the employee is deemed ineligible and loses all accumulated safe years.
3. 10+ Safe Years: Employees who have achieved ten years of eligibility will be placed in grace for any year in which any of the disqualifying infractions listed in Sections C. and D. occurs. The next qualifying year will then advance the total number of safe years achieved. However, if such an employee has three consecutive years in which they commit an infraction listed in Sections C. and D. above, they will lose all accumulated safe years.

**F. Transfer of Safe Years**

Employees who transfer between or within Divisions and/or Departments of the Authority represented by TWU Local 234 will retain all accumulated years earned toward the safety award using the criteria applicable to the position the employee held for each qualifying year.

G. Calculation of Maintenance Employees' Credit for Prior Safe Years With the inception of the Maintenance Award Program in 1993, any Maintenance employee eligible for an individual safety incentive award must first reach and pass a threshold often (10) safe years which may date back to 1983. Maintenance employees who reach the plateau of ten (10) safe years will have their prior safe years credited for the purpose of calculating their safety award on the basis of their record or the formula agreed upon by the parties. All Maintenance employees' records will be reviewed on an individual and calendar year basis. If records are complete and reliable, they will be used. If records are incomplete, the employee will be credited with the higher of the existing record, or the agreed upon formula.

**V. Safety Incentive Programs**

A new safety incentive program will be defined by the Joint Health and Safety Committee (JHSC) and recommended to the General Manager in accordance with the following timetable:

- A. Within six (6) months of ratification of the labor agreement, the JHSC will present a measurable, monetarily-based safety and incentive program to the General Manager for consideration.
- B. The proposed program will apply to all eligible bargaining unit employees working in their primary positions as well as management employees who supervise members of the bargaining unit provided that all measurable standards, including but not limited to attendance, accident, discipline, and safety criteria, are maintained.
- C. Following approval by the General Manager, a six (6) month pilot program will be established to test the proposed program at three (3) locations which will be determined by the JHSC.
- D. The JHSC will monitor all measures of the program and will recommend adjustments as appropriate.
- E. Within one (1) year of adoption of the contract, the Safety Awards and Incentive Program will be implemented. The Chief Officer of Safety and Risk Management will be responsible for administration of the

program following adoption. Monthly status reports will be presented before the JHSC as well as directly to the General Manager and Treasurer.

F. Financial allocations will be based upon criteria established by the JHSC and approved by the General Manager. In any event, the financial distribution will include fifteen percent (15%) of documented savings in areas related to safety and workers' compensation as a direct result of the new safety and incentive program up to a maximum of \$500,000 in the first full year of the program. Maximums in subsequent years will be recommended by the JHSC and approved by the General Manager, but will be no less than \$500,000 in each year. Dollar amounts and percentages in this paragraph will apply jointly to all three divisions (CTD, Frontier and Victory) represented by TWU Local 234.

G. Financial awards will be distributed annually in accordance with an approved formula determined by the JHSC on a location basis following the anniversary of the implementation date.

H. The Treasurer's Office must approve all calculations related to savings as well as the distribution of incentive awards.

#### **VI. Resolution of Disputes**

Health and safety items must be submitted to the Joint Health and Safety Committee for consideration. If the matter is not resolved satisfactorily by the committee, then the Union may appeal the matter to the Labor Relations step of the grievance procedure for handling. Health and safety disputes not resolved within the grievance procedure may be appealed to a third party expert or panel of experts, if mutually agreed to by the parties, for resolution or taken to arbitration, on an expedient basis in accordance with this Agreement. Any cost associated with the selection of the third party expert or panel will be shared equally by the Authority and the Union.

# GCRTA Non-Punitive Hazard Reporting Policy



The Greater Cleveland  
Regional Transit Authority

Main Office  
1240 West 6th Street  
Cleveland, Ohio 44113-1331  
Phone 216 566-5218  
Fax 216 781-4043  
email: jcalabrese@gcrta.org  
website: www.rideRTA.com

## Greater Cleveland Regional Transit Authority Non-Punitive Hazard Reporting Policy

The Greater Cleveland Regional Transit Authority (GCRTA) is committed to the safest transit operation possible; as a result, GCRTA is committed to having uninhibited reporting of all incidents, hazards and occurrences which may compromise the safe conduct of our operations. To this end, every employee is responsible for communicating any information that may affect the integrity of transit safety. Such communication must be completely free of any form of reprisal.


Joseph A. Calabrese, CEO  
General Manager/  
Secretary-Treasurer

The GCRTA will not take disciplinary action against any employee who discloses a hazard, incident or occurrence involving safety. This policy shall not apply to information received by the Authority from a source other than the employee, or which involves an illegal act, or a deliberate or willful disregard of promulgated regulations or procedures.

The primary responsibility for transit safety rests with supervisors and managers; however, safety is everyone's concern.

Our method of collecting, recording and disseminating information obtained from Hazard Reports and the Safety Hotline (216-566-5111) has been developed to protect, to the extent permissible by law, the identity of any employee who prefers to remain anonymous and who provides safety information.

I urge all staff to use our hazard-reporting program to help GCRTA become a leader in providing our customers and employees with the highest level of transit safety.

  
\_\_\_\_\_  
Joseph A. Calabrese, CEO  
General Manager, Secretary-Treasurer

# Big Blue Bus SHARP Policy



## DEPARTMENTAL INSTRUCTION

### Employee Safety Hazards and Analysis Reporting Program (SHARP)

IV-1-8

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Subject:	<b>Employee Safety Hazard and Analysis Reporting Program (SHARP)</b>	Document #:	<b>IV-1-8</b>
Division:	<b>Transit Safety and Training Division</b>	Total Pages:	<b>7 (5+Attachments)</b>
Issued By:	<b>Liseth Guizar, Safety and Training Manager</b>	Issue Date:	<b>12/18/2019</b>
Approved By:	<b>Ed King, Director of Transit Services</b>	Approver Initials:	
Note:			

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#### Revision Information

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Rev. No.	Date	Activity
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#### 1. PURPOSE

- 1.1. City of Santa Monica's Big Blue Bus (BBB) is committed to the continuous improvement of workplace safety by encouraging staff to report safety hazards and near-miss events without fear of reprisal so that safety risks can be mitigated.

#### 2. POLICY

- 2.1. Big Blue Bus shall establish an employee safety reporting program known as the Safety Hazard and Analysis Reporting Program (SHARP) to provide staff with a streamlined method of communicating safety hazards, near-miss incidents, and other safety concerns that is non-punitive, is flexible and easy to access, provides timely and accessible feedback, and is a vehicle for change.
- 2.2. Staff who participate in SHARP are ensured that no action will be taken against any staff member who discloses a safety concern, unless the disclosure indicates an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures.
- 2.3. Following the steps in this policy will:
  - Promote an open, learning, workplace safety culture;
  - Employ a systematic approach for all administration, maintenance, facilities staff, and Motor Coach Operators to report safety issues;
  - Provide an opportunity to gain understanding about operational concerns and hazards through hazard identification and analysis;
  - Utilize the information to implement reforms as appropriate or necessary in order to prevent or reduce future risk of reoccurrence; and
  - Support management's objectives of establishing a safety reporting culture with the goal to identify and control hazards, reduce safety risk, and prevent harmful incidents.



**3. SCOPE**

3.1. This policy applies to all BBB staff, regardless of location or job description.

**4. DEFINITIONS**

- 4.1. **Hazard:** Any real or potential condition that can cause injury, illness or death; damage to or loss of the facilities, equipment rolling stock, or infrastructure of a public transportation system; damage to the environment; or reduction of ability to perform a prescribed function.
- 4.2. **Hazard Analysis:** Formal activities to analyze potential consequences of hazards during operations related to provision of services.
- 4.3. **Hazard Identification:** Formal activities to identify hazards during operations related to provision of services.
- 4.4. **Near-Miss:** An incident resulting in neither an injury nor property damage, but is an event that, under slightly different circumstances, could have been an accident. A near-miss could also be called a “close call” or a “near collision.”
- 4.5. **Safety Risk Mitigation:** The activities whereby BBB controls the probability or the severity of the potential consequences of hazards.
- 4.6. **Safety Risk:** The assessment, expressed in terms of predicted probability and severity, of the consequence(s) of a hazard taking as reference the worst foreseeable-but-credible- situation.
- 4.7. **SHARP Report Form:** Form used to report hazardous conditions, safety concerns or near-misses (Attachment A).

**5. REPORTING PROCESS**

- 5.1. SHARP Report Forms are located throughout the BBB campus, in the Dispatch office, Operator Ready Room, Maintenance Building, and through the MyInfoBlue employee portal.
- 5.2. Upon identification of a hazard, near-miss incident or safety concern, staff are encouraged to complete the SHARP Report Form, which may be submitted to either Dispatch, their supervisor, through MyInfoBlue, or directly to the Safety and Training Division in person or via email at [BBBsafety@smgov.net](mailto:BBBsafety@smgov.net).



**Employee Safety Hazards and Analysis Reporting Program  
(SHARP)**

**IV-1-8**

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- 5.3. The report may be submitted anonymously. To submit a form anonymously via MyInfoBlue, leave employee name section blank.
  - 5.4. All SHARP Report Forms are assigned to the Safety and Security Officer, who initiates the investigation/hazard analysis.
  - 5.5. The investigation is documented on the original form, and an agreed upon action is decided based on the hazard analysis. If additional information is needed, the Safety and Security Officer will follow up with the reporting party, if report is not submitted anonymously.
  - 5.6. Agreed upon actions may include action to be taken by BBB Divisions, City of Santa Monica Departments or vendors, external vendors or external government agencies. Agreed upon actions may also include that no action will be taken as result of various reasons, including that the reported hazard may not be deemed as a hazard, or internal/external stakeholders may not be able to eliminate or engineer out the hazard. As a result, action time varies on a case by case basis.
  - 5.7. Once the agreed upon action is decided, the Safety and Security Officer will submit a written request to the responsible party for action to be taken.
  - 5.8. Formal communication of the process that was taken, including the agreed upon action, is provided in email and via signed hard copy to the reporting party.
  - 5.9. SHARP report information is entered into the SHARP Master Log.

**6. EXAMPLES OF HAZARD AND NEAR-MISS INCIDENTS**

- 6.1 Hazards may include:
  - Low-hanging branches that can cause bus damage
  - Large potholes
  - Missing safety items on equipment
  - Clutter blocking fire exits
  - Poor lighting
- 6.2 Near-misses may include:
  - Near collision due to malfunctioning traffic signal



- Tripping due to uneven walking surface
- Equipment falling near employee

**7. NON-PUNITIVE EXEMPTIONS**

7.1. Reporting of hazards, near-miss incidents and other safety concerns is non-punitive and employees will not be subject to disciplinary measures unless their behavior coincides with one of the following serious offences:

- 7.1.1. Willful breach of the law;
- 7.1.2. Acts of gross negligence;
- 7.1.3. Acts of gross misconduct (e.g. violation of drug and alcohol policy); and
- 7.1.4. Workplace violence, including, but not limited to: fighting, assault, harassment, or possession of a weapon.

**8. COMMUNICATION**

8.1. Monitoring and investigation of results of SHARP Reports will be communicated to staff in at least one of the following venues:

- Formal communication of investigation and results in writing to the reporting party;
- Quarterly safety meetings;
- SafetyShare committees;
- Bulletin boards; and
- MyInfoBlue employee portal.



**9. RESPONSIBILITIES**

9.1. It is the responsibility of **BBB Management** to:

9.1.1. Support the development and implementation of safe working practices through the provision of proper resources.

9.2. It is the responsibility of the **Safety and Training Manager** to:

9.2.1. Enforce federal health and safety laws, standards and procedures.

9.2.2. Acknowledge and document potential hazards reported by BBB staff.

9.2.3. Monitor performance of the SHARP Program and redesign safety practices and procedures when prudent.

9.2.4. Train all BBB staff on the identification of hazards and safe work practices.

9.2.5. Ensure the performance of thorough investigations based on facts and provide recommendations for corrective actions.

9.3. It is the responsibility of **BBB Staff** to:

9.3.1. Promptly report all hazards, near-miss incidents or safety concerns by completing the SHARP Report Form and submitting it as stated in Section 5.2.



- Please use this form to report any safety concerns, hazards, or near-miss incident.
- SHARP Report Form may be submitted to Dispatch, your supervisor, via MyInfoBlue, or directly to the Safety & Training Division in person or via email at [BBBSafety@smgov.net](mailto:BBBSafety@smgov.net).
- Form may be submitted anonymously.

**SHARP Report Form**

Date Submitted: \_\_\_\_\_

**TO BE COMPLETED BY EMPLOYEE**

Date of Incident: \_\_\_\_\_ Time of Incident: \_\_\_\_\_

Name of Employee: \_\_\_\_\_ Employee No. \_\_\_\_\_

Dept./Div./Section: \_\_\_\_\_ Job Title: \_\_\_\_\_

Description of Hazard/Near-Miss/Safety Concern: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Location of Reported Issue: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Employee Recommendation(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Once form is completed by employee, forward to Safety and Training Division**

**Attachment A-1**



## Appendix E – Acronyms

ADA	Americans with Disabilities Act
AFSCME	American Federation of State, County and Municipal Employees
AGM	Assistant General Manager
APTA	American Public Transportation Association
ARB	Allegation Review Board
ASRS	Aviation Safety Reporting System
ATDA	American Train Dispatchers Association
ATO	Air Traffic Organization
ATSAP	Air Traffic Safety Action Program
ATU	Amalgamated Transit Union
BBB	Big Blue Bus
BLET	Brotherhood of Locomotive Engineers and Trainmen
BOCIT	Bus Operator's Continuous Improvement Team
BRT	Bus Rapid Transit
BSEE	Bureau of Safety and Environmental Enforcement
BTS	Bureau of Transportation Statistics
C3RS	Confidential Close Call Reporting System
CalOSHA	California Occupational Safety and Health Administration
CBA	Collective Bargaining Agreement
CBU	Collective Bargaining Unit
CFR	Code of Federal Regulations
CIPSEA	Confidential Information Protection and Statistical Efficiency Act
CNR	Canadian National Railway
COS	Center for Offshore Safety
CPUC	California Public Utilities Commission
CTA	Chicago Transit Authority
CUTR	Center for Urban Transportation Research
DGM	Department General Manager
DTWP	Department of Transportation and Public Works
ERC	Event Review Committee
ERS	Employee Reporting System
ESC	Executive Safety Committee
ESR	Employee Safety Reporting
FAA	Federal Aviation Administration
FAST	Fixing America's Surface Transportation Act
FOIA	Freedom of Information Act
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GCRTA	Greater Cleveland Regional Transit Authority
HFLSRC	Hazard Fire Life Safety Resolution Committee
IBEW	International Brotherhood of Electrical Workers
IMOU	Implementing Memorandum of Understanding

JHSC	Joint Health and Safety Committee
JTA	Jacksonville Transportation Authority
LA Metro	Los Angeles County Metropolitan Transportation Authority
LSC	Location Safety Committees
LTD	Lane Transit District
LYNX	Central Florida Regional Transportation Authority, dba LYNX
MAP-21	Moving Ahead for Progress in the 21st Century Act
MARTA	Metropolitan Atlanta Regional Transit Authority
MBTA	Massachusetts Bay Transportation Authority
MDT	Miami Dade Transit
MIL-STD	Military Standard
MOU	Memorandum of Understanding
MTA	Maryland Transit Administration
NASA	National Aeronautics and Space Administration
NATCA	National Air Traffic Controllers Association
NCTD	North County Transit District
NJT	New Jersey Transit
NRC	Nuclear Regulatory Commission
NSC	National Safety Council
NTSB	National Transportation Safety Board
OCC	Operations Control Center
OCS	Outer Continental Shelf
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
OSSC	Operations Safety Steering Committee
PPE	Personal Protective Equipment
PRT	Peer Review Team
PTASP	Public Transportation Agency Safety Plan
RAR	Rail Accident Report
RSA	Request for Safety Assessment
RTAP	Rural Transit Assistance Program
SacRT	Sacramento Regional Transit District
SafeOCS	Safe Outer Continental Shelf
SCAT	Sarasota County Area Transit
SEMS	Safety and Environmental Management Systems
SEPTA	Southeastern Pennsylvania Transportation Authority
SMART	Sheet Metal, Air, Rail, and Transportation
SMART-UTU	SMART United Transportation Union
SMS	Safety Management Systems
SOP	Standard Operating Procedure
SPPE	Safety and Pollution Prevention Equipment
SRM	Safety Risk Management
SSO	State Safety Oversight
SSOA	State Safety Oversight Agency

TCRC	Transit Change and Review Committee
TCRP	Transit Cooperative Research Program
TCU	Transportation Communications Union
TRACS	Transit Advisory Committee for Safety
TRB	Transportation Research Board
TriMet	Tri-County Metropolitan Transportation District of Oregon
TSA	Transportation Security Administration
TTI	Texas Transportation Institute
TWU	Transport Workers Union
UMSC	Union Management Safety Committee
U.S. DOT	United States Department of Transportation
UPT	Unduplicated Passenger Trips
USC	United States Code
WMATA	Washington Metropolitan Area Transportation Authority

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## Endnotes

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