Safety Culture Journey

A Case Study Of An Organization's Efforts To Improve Their Safety Culture

The Washington Metropolitan Area Transit Authority

On Monday, June 22, 2009, the Washington Metropolitan Area Transit Authority (WMATA) Metrorail train 112 struck the rear of stopped Metrorail train 214 at the Fort Totten station. The impact caused the rear car of train 214 to telescope into the lead car of train 112. Nine people aboard train 112 were killed and 52 people were injured.[1] One major contributing factor to this accident was "WMATA's lack of a safety culture."[1] The U.S. Nuclear Regulatory Commission (NRC) completed a safety culture case study[2] on this Metrorail accident that appears on the NRC's Web site at http://pbadupws.nrc.gov/docs/ML1115/ML11159A220.pdf

Since the accident, WMATA has conducted safety culture assessments, implemented new initiatives and prioritized safety culture in its strategic plan. The journey demonstrates how an organization's safety culture can contribute to a serious accident, how safety culture can be assessed and improved, and how a positive safety culture can be fostered and sustained through strategic planning and leadership commitment to safety as the highest priority.

Have you been on this Safety Culture Journey?

How did the organization assess its safety culture and identify weaknesses? What corrective actions and new initiatives did it take? How can it sustain a positive safety culture?

The U.S. Nuclear Regulatory Commission (NRC) was asked these questions many times after stakeholders, vendors, and others involved in safety regulation reviewed the safety culture case studies (http://www.nrc.gov/about-nrc/safety-culture/sc-outreach-edu-materials.html#sccs). In response to these questions, the NRC developed the Safety Culture Journey–a case study of an organization's efforts to improve its safety culture.
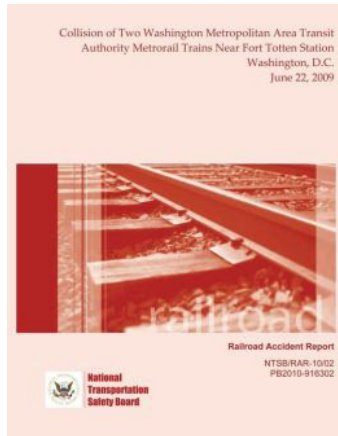
Safety culture is a dynamic process that can change with new leadership, situations, and organizational conditions. Building and sustaining a positive safety culture that can withstand organizational challenges requires time, vigilance and initiative. An organization's response to accidents or events typically includes assessment of its safety culture, identification of weakness, and implementation of corrective actions and new initiatives. An organization must continue to be diligent, plan for the future, and put goals in place to keep the focus on safety. The journey it takes reflects its commitment to safety as its highest priority.

As you read through this Safety Culture Journey, consider how the actions, initiatives and lessons learned could apply to your organization and ask yourself the following questions:

1. Has my organization been on this journey?
2. What did my organization do differently?
3. What can I learn from this organization's experience?
4. How does this information increase my understanding of safety culture?
5. How could I improve safety culture in my organization?

How Did The Organization Assess Their Safety Culture and Identify Weaknesses?

Since the Metro accident in 2009, there has been an investigation, audit, reports and surveys. These assessments provided WMATA with the information needed to decide what actions to take. Although the following list of reports is not comprehensive, it demonstrates WMATA's safety culture journey.[3]

Collision of Two Washington Metropolitan Area Transit Authority Metrorail Trains Near Fort Totten Station Washington, D.C. June 22, 2009

Railroad Accident Report NTSB/RAR-10/02 PB2010-916302

National Transportation Safety Board

- On March 4, 2010, the Federal Transit Administration (FTA) issued its audit of the Tri-State Oversight Committee (TOC) and WMATA. The report highlighted key deficiencies in the safety and oversight programs at WMATA and TOC in the aftermath of the Ft. Totten collision, and recommended that WMATA fundamentally change its organization and culture.[3]

- The National Transportation Safety Board (NTSB) investigated the accident and released its report on July 27, 2010. This report included the 11 findings and 10 recommendations from the FTA's 2010 audit, and it provided evidence of an ineffective safety culture within the organization. NTSB issued a total of 34 recommendations in connection with this accident.[1]

- During 2010, the WMATA Office of the Inspector General (OIG) performed a control self-assessment (CSA) of employee safety. The CSA results indicated that employees did not believe WMATA provided them with a safe working environment because of unmitigated hazards, inadequate training and ineffective internal and external communication.[3]

- During July 2010, over 9,000 WMATA employees completed a safety culture survey and the organization reported the results in October 2010. The findings

Nearly Two-Thirds of WMATA Personnel Have Observed a Safety Violation in the Past Year
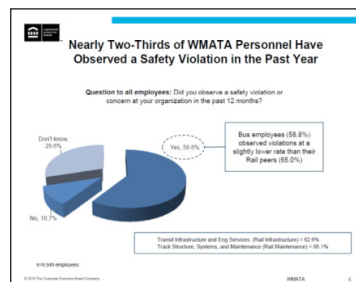
identified numerous weaknesses in safety culture. Among them: Employees were concerned about retaliation from peers; reported safety concerns were not consistently addressed across Metro; and when safety issues were appropriately addressed, employees felt Metro did not close the loop with employees.[5]

- In February 2011, WMATA issued a safety progress report to its Board of Directors that included the following goal: "Many recommendations, one central theme-Metro must instill a strong, unified and pervasive safety culture and thereby improve the safety of our employees, customers and communities we serve."[6]

- From September through October 2012, WMATA administered an Employee Engagement Survey to measure the progress in creating a safety culture and identify WMATA strengths and opportunities for improvement. The results indicated that WMATA has made significant progress in strengthening its safety culture. The most important finding was that employees were reporting significant progress in implementing Metro's safety culture.

- The scores of the survey indicated that employees:

  ◆ know how to report safety issues or concerns

  ◆ feel they have the training to do the job safely and can provide ideas and suggestions for improving safety

  ◆ assert that their direct supervisor regularly provides safety communication

  ◆ report that their co-workers take safety policies and procedures seriously

  ◆ believe effective action would be taken if a safety violation was reported

  ◆ assert they are comfortable in reporting safety violations and concerns[7]

What Corrective Actions And New Initiatives Did They Take?

In response to the 2009 accident and subsequent investigation, audits and surveys, WMATA implemented changes to its organization and developed new programs and policies.[3,4] These initiatives reflect the traits of a positive safety culture as described in the NRC's Safety Culture Policy Statement (SCPS). Although some initiatives could reflect several SCPS traits, only the most relevant trait associated with each key initiative is listed. In addition, because one trait may best represent several initiatives, all nine SCPS traits may not be represented below.

Initiatives	Safety Culture Policy Statement Trait(s)
Metro's Board took the lead in building a safety - first culture by establishing the Safety and Security Committee that provides public information on WMATA's safety program activities and initiatives, safety performance, as well as the results of investigations into accidents and incidents.	**Leadership Safety Values and Actions**
WMATA's Chief Safety Officer is a direct report to the General Manager and Chief Executive Officer (GM/CEO) and is an active and involved member of the Executive Leadership Team. Since 2010, the Safety Department has doubled in size and increased it authority and technical capacity. The Safety Department's annual budget has more than tripled since 2010 to $17.4 million.	**Leadership Safety Values and Actions**
WMATA updated its Metrorail Safety Rules and Procedures Handbook (MSRPH), and developed a new Roadway Worker Protection (RWP) program. Both initiatives represent a positive change in the way WMATA conducts its operations and maintenance.	**Work Processes**
WMATA re-established and strengthened its safety committee structure to ensure that safety concerns are identified at the field level, evaluated and resolved at the managerial level, and that conflicts and differences of opinion are decided at the executive level.	**Problem Identification and Resolution**
WMATA initiated a safety hotline that includes an anonymous, web-based reporting application that runs 24/7.	**Environment for Raising Concerns**
WMATA strengthened its whistleblower policy, making it non-punitive.	**Environment for Raising Concerns**
WMATA gave employees the right to challenge their safety on the job through a "Good Faith Challenge" process.	**Questioning Attitude**
WMATA created the "Champions of Safety" program to recognize employees who maintain safe work practices.	**Personal Accountability**
All WMATA executive management communications with employees have been reviewed to ensure that safety is included and prioritized, and is the first agenda item for most executive meetings and briefings.	**Effective Safety Communication**
WMATA's GM/CEO conducts one-on-one monthly meetings with members of the Executive Leadership Team to reduce communication silos and promote proactive ownership of safety issues.	**Leadership Safety Values and Actions**
WMATA's Executive Safety Committee has been re-established and reviews WMATA's safety performance to discuss the results of investigations into accidents, incidents and unusual occurrences.	**Continuous Learning**

How Can WMATA Sustain a Positive Safety Culture?

In 2013, WMATA issued their 2013-2025 strategic plan, which states the following: "Continuous attention to improving safety culture has resulted in employees who are now highly engaged, have clarity about their mission, and have the authority and information to do their jobs well. Finally, the strategic plan clearly articulates that everyone must do their part in creating and sustaining a culture of safety and security, and affirms that safety is the first priority." Goal 1 of this plan, "Build and Maintain a Premier Safety Culture and System," reflects their focus on safety culture and includes the following:[4]

- **Keep safety Metro's first priority:** Metro will continue its efforts to return to and keep the system equipment and infrastructure in good condition. Metro will use data-driven and science-based methods to allocate resources, use system safety practices and principles and environmental design to enhance safety, and seek to meet or exceed national safety and security standards for transit.
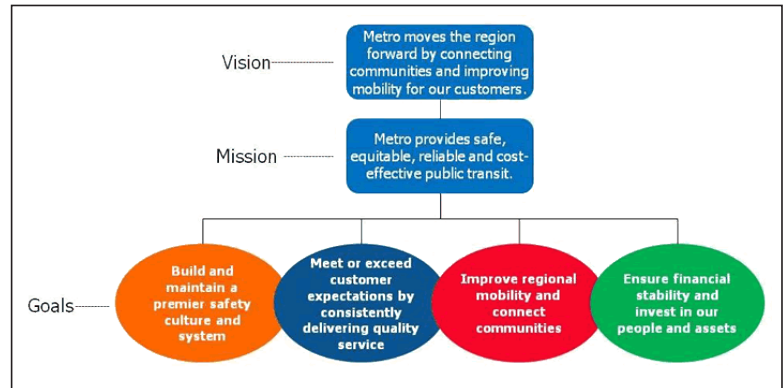
- **Create a shared climate of safety:** Metro will work with employees, riders, jurisdictional partners, and the general public to make sure that everyone does their part in creating and sustaining a culture of safety and security in stations, vehicles, support facilities, and access points. Metro will enhance its communications feedback loops to bring critical safety information to empowered agents quickly to prevent accidents before they happen.

- **Expect the unexpected:** Metro will continue to support the region's emergency transit management and security readiness protocols and seek to make transit emergency protocols widely—and easily—understood. Metro will maintain regional evacuation capability and prepare for any event that requires wide-scale response. On a smaller scale, Metro will continue to improve incident response timing, planning, preparation, and investigation.

*The NRC's **Safety Culture Policy Statement (SCPS)** provides the NRC's expectation that individuals and organizations performing regulated activities establish and maintain a positive safety culture commensurate with the safety and security significance of their activities and the nature and complexity of their organizations and functions. The SCPS is not a regulation; therefore, it is the organization's responsibility, as part of its safety culture program, to consider how to apply the SCPS to its regulated activities.*

The NRC's SCPS defines safety culture as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment. Experience has shown that certain personal and organizational traits are present in a positive safety culture. Nine traits were included in the NRC's SCPS, although additional traits may also be important in a positive safety culture. The NRC's SCPS, including the nine traits of a positive safety culture, case studies, Journeys and Trait Talk, can be found on the NRC's Safety Culture Website at http://www.nrc.gov/about-nrc/safety-culture.html.

The NRC looks forward to continuing to provide you with information about an organization's efforts to improve their safety culture. If you have a question or would like to make a suggestion, please contact the U.S. Nuclear Regulatory Commission, Office of Enforcement, Safety Culture Team, at external_safety_culture.resource@nrc.gov.

Source of Information:

1. Railroad Accident Report, NTSB Number RAR-10/02

2. Safety Culture Communicator case study 1: June 2009 Collision of Two Washington Metropolitan Area Transit Authority Metrorail Trains Near Fort Totten Station, Washington, DC

3. Rail Transit Safety Program: Safety and Maintenance Audit of the Washington Metropolitan Area transit Authority (WMATA) Final Audit Report November 28, 2012, Federal Transit Administration, Office of Safety and Security.

4. MOMENTUM The Next Generation of Metro Strategic Plan 2013–2025

5. Safety Culture Survey Report, October 28, 2010

6. Safety Progress Report, WMATA, Safety and Security Committee, February 24, 2011

7. Board Action/Information Summary: Employee Engagement Survey, Washington Metropolitan Area Transit Authority, December 6, 2012