Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2(
metro.net

Metro

SUBJECT: RESPONSE TO BOARD MOTION ON SAFETY CULTURE

ACTION: RECEIVE AND FILE REPORT ON SAFETY CULTURE

RECOMMENDATION

Receive and file response to a Board Motion of October 27, 2011 regarding MTA's safety culture.

ISSUE

In recent years accidents have occurred nationwide resulting from a lack of oversight for the system operation and organizational safety. In particular, one accident involving a collision between two trains at the Washington Metropolitan Area Transit Authority (WMATA) in June 2009 called into question the effectiveness of the WMATA Board's oversight responsibility for organizational safety and WMATA's safety culture. This accident served as the catalyst for the Board motion to ensure safety oversight at the highest level of our organization.

DISCUSSION

To promote a healthy safety culture and to continually strive to improve safety at MTA in a proactive manner, the Board motion directed the CEO to take action in the following five areas:

1. To provide a literature review on the topic of "safety culture", in particular, specifically delineating the MTA Board's roles and responsibilities to fully support a strong safety culture at MTA. As part of this effort, the motion also directed the CEO to provide a review of the WMATA June 2009 accident and the subsequent National Transportation Safety Board (NTSB) report.
2. To procure the services of an outside, independent consultant to conduct an evaluation of MTA's safety culture, including the five specific elements that comprise a safety culture. Following the assessment, the motion directed the CEO to follow-up with a presentation to the Board on recommendations made by

the consultant to enhance MTA's safety culture and a plan to implement those recommendations.

3. To report to the full Board on a quarterly basis on the safety of our transit system and system safety issues.
4. To review our agency bylaws and statement of organizational values and Board responsibilities to determine if these documents promote safety as the Board's top oversight role and the agency's top priority.
5. To include as part of each board report and agenda item a separate, clearly marked section that provides an assessment of the item's impact on safety.

In addition to the above five areas, the motion also proposed the Board change the name of the "Operations Committee" to the "System Safety and Operations Committee" to indicate clearly the Board's central role of providing oversight of MTA's safety culture and system safety, and to expand the scope of the "System Safety and Operations Committee" to include monthly reports on safety issues, safety audits, safety upgrades, and recommendations to improve safety culture.

This report provides an update on the actions required by the October 27, 2011 motion for each of the areas identified above.

Literature Review on Safety Culture

Attachment A includes an update on this item.

MTA Board's Role and Responsibilities in supporting Safety Culture

While there is a wealth of information, articles, and reports relating to safety culture, there is no universally recognized and adopted consensus on what Board members' roles and responsibilities should be in an organization regarding safety culture. The most relevant literature that addresses this area is a joint publication by The Institute of Directors and Health and Safety Executive in the United Kingdom in *Leadership Actions for Directors and Board Members*. Some of the actions described in that report that Board members should take is establishing a safety policy that is an integral part of an organization's values, understanding the significant risks faced by the organization, dedicating adequate resources to mitigate those risks based on competent advice, receiving and reviewing performance reports on leading indicators and lagging indicators, and considering immediate reviews in the light of major shortcomings or events. The Board's role in supporting and overseeing safety can also be found in NTSB's report of the WMATA June 2009 accident. Based on their findings, MTA's Board should be involved in overseeing and supporting the actions proposed in response to NTSB and FTA recommendations, as well as overseeing the status of open corrective action plans and the results of FTA-required internal safety audits and external safety audits and inspections conducted by the California Public Utilities Commission.

WMATA June 2009 Accident and NTSB report

In June 2009 two Washington Metropolitan Area Transit Authority Metrorail trains collided near Fort Totten Station in Washington, D.C. killing 9 people and injuring 52 others. Equipment damage was estimated to be $12 million. The probable cause of the accident determined by NTSB was a technical failure of the Metrorail automatic train control system which stopped detecting the train ahead.

However, the NTSB also identified several contributory causes of the accident. One of those was ineffective safety oversight by the WMATA Board of Directors. NTSB found that the WMATA Board of Directors did not exercise oversight responsibility for the system safety of the WMATA system. More specifically, it found that the Board of Directors did not proactively seek adequate information about, nor did it demonstrate adequate oversight to address, the number of open corrective action plans from previous safety audits of WMATA.

As a result of its investigation, the NTSB made several recommendations to multiple agencies – the USDOT, the FTA, WMATA, the WMATA Board, the Safety Oversight Committee, Alstom Signaling Inc. (which acquired General Railway Signal Company, the train control equipment manufacturer for WMATA's signaling system), and six transit agencies, including MTA, whose train control equipment included circuits similar to those at WMATA and/or was supplied by the same manufacturer who supplied WMATA's train control equipment. MTA immediately embarked on implementing the NTSB recommendations by making modifications to our train control monitoring system and working jointly with our train control equipment manufacturers to perform testing of track circuits that were susceptible to developing the fault conditions encountered in the WMATA accident. The testing did not reveal any anomalies. Also, well before the WMATA accident, MTA had initiated a capital project to replace its Generation 2 audio frequency track circuits (the type of track circuit that failed at WMATA). We anticipate completing this project by June 2012.

Evaluation of MTA's safety culture

MTA issued a notice to proceed on December 6, 2011 to Sam Schwartz Engineering, LLP (SSE) to conduct an evaluation of MTA Operations' safety culture focusing on the five elements (informed culture, reporting culture, learning culture, just culture, and flexible culture) that compose a safety culture. SSE's report of its findings and recommendations to improve MTA's safety culture is due within 90 days of the notice-to-proceed date.

Quarterly Report to full Board on Safety issues

The Corporate Safety department will provide its first report at the March 2012 Board meeting and subsequently every 90 days.

Review of MTA's bylaws and organizational values

Corporate Safety staff conducted research on MTA's bylaws, the Board's current responsibilities and the agency's values to determine whether these documents promote safety as the agency's top priority. There are no Board bylaws or responsibilities that are codified. However, MTA's organizational values include Safety as the first component. Specifically, our statement of values says "Safety: We commit to ensure that our employees, passengers and the general public's safety is always our first consideration." In addition to emphasizing safety as one of our values, MTA's vision statement further supports our importance on safety. MTA's Vision statement says "Safe, clean, reliable, on-time, courteous service dedicated to providing Los Angeles County with a world class transportation system."

Assessment of safety in each Board report

This action has been completed. Effective January 2012, every Board item will contain a separate section to assess the impact of the item on safety.

Renaming of Board Committee

Effective November 2011, MTA's "Operations Committee" was renamed to the "System Safety and Operations Committee".

Expanding the Scope of the System Safety and Operations Committee

Beginning in January, 2012, the Corporate Safety department will provide monthly reports to the Committee on safety issues, safety audit findings, and other safety measures used to track safety performance

NEXT STEPS

At the conclusion of the assessment of MTA's safety culture, the CEO will present to the Board the findings and recommendations made by the independent consultant to enhance the safety culture and a plan for implementing the recommendations.
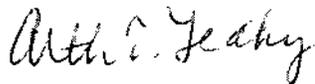
ATTACHMENTS

A.   Literature Review on Safety Culture

Prepared by: Vijay Khawani, Executive Officer, Corporate Safety
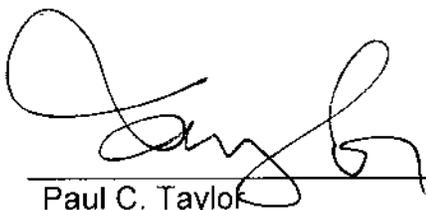
Paul C. Taylor
Deputy Chief Executive Officer

Arthur T. Leahy
Chief Executive Officer

LITERATURE REVIEW ON SAFETY CULTURE

What is Safety Culture

Occupational Safety and Health Administration (OSHA) has observed that, "developing strong safety cultures have the single greatest impact on accident reduction of any process" (OSHA, 2003). When safety culture is strong, everyone feels accountable for safety, actively identifies and corrects unsafe conditions (OSHA, 2003). Safety culture expert James Reason argues safe culture is an informed culture that depends upon creating an effective reporting culture that is strengthened by a just culture clearly defining the line between acceptable and unacceptable behavior (Reason, 1998). Reason has broken safety culture into five elements, elaborated upon in the Motion: informed culture, reporting culture, just culture, flexible culture and learning culture (NTSB, 2009). While there are several definitions of safety culture, it essentially refers to the behavioral aspects (i.e. 'what people do') and the situational aspects of an organization (i.e. 'what the organization has'). In its very elemental form, the Confederation of British Industry defined it as 'the way we do things around here'.

Creating a Safety Culture

Reason notes that safety culture is not inherent, but the result of evolving responses to conditions, events, leadership and workforce atmosphere (Reason, 1998). Developing a safety culture takes time as a result of continual process improving steps. Safety culture required the commitment of employees and employers to safety culture. According to OSHA it is necessary to obtain top management "buy-in", continue building "buy-in", build trust, conduct self assessments, initial training, establish a steering committee, develop site safety vision, align the organization, define specific roles at all levels of the organization, develop measurements and a feedback system, develop rewards, awareness training, implement process changes with management involvement, continually measure performance, communicate results, celebrate successes, and on-going support (OSHA, 2003).

To this end, Metrolink has established nine traits: leadership, problem identification and resolution, personal accountability, improving work processes, continuous learning, work environment for raising concerns, effective communication, respectful work environment, and questioning work environment (F. Jackson, Personal Conversation, November 15, 2011). Metro's safety principles are set out by the Injury and Illness Prevention Program (IIPP) and include: safety is 24/7 priority, safety is everyone's responsibility, accidents and injuries are preventable, working safety is a condition of employment, training is essential for good safety performance, and management is accountable for safety (IIPP, 2010).

Board Responsibilities in Establishing Safety Culture

The Institute of Directors (IoD) and Health and Safety Executive (HSE) created a report laying out safety culture leadership roles for directors and board members. The report's central principles include: strong and active leadership from the top, worker involvement, and assessment and review (IoD and HSE, 2011). Leadership from the top requires an active commitment to safety at the board level, establishing top-to-bottom communication networks and integrating safety into business decisions. The second component, worker involvement, requires engaging the workforce to create safe and healthy conditions, a communication feedback loop from bottom-to-top, and effective training. Lastly, assessment and review are the result of identifying and managing risk, and monitoring, reporting and reviewing performance. The guidelines layout four action areas to achieve the core principles: plan the direction for health and safety, deliver health and safety, monitor health and safety, and review health and safety.

The WMATA case study illustrates the importance of the Board of Directors role in facilitating a strong safety culture through implementation of and oversight over safety programs. One of the sixteen recommendations provided by NTSB to WMATA was to strengthen the WMATA Board's commitment to safety (NTSB, 2011). In his outgoing remarks, former WMATA Board Chairman Peter Benjamin notes that, "adopting a new mission statement which emphasized safety, and creating a Board safety committee", was completed in the first month (Benjamin, 2011).

Metro's Safety Culture

Metro's IIPP outlines the Board and Chief Executive Officer's responsibilities to establish and maintain effective environmental, health, and safety policies specific to Metro employees. Element 1 of Metro's IIPP states it is the responsibility of the Board and CEO to establish and maintain effective safety policies (IIPP, 2010).

Metro's IIPP outlines specific responsibilities for each department and notes that successful program implementation relies on employee accountability for safety requirements. The IIPP states Metro's safety policy as, "Safety's first for our customers, employees, and business partners as we plan, construct, operate and maintain the region's transportation system" (IIPP, 2010).

Communication of Safety Goals within the Organization

WMATA's 2010 *Safety Culture Survey* revealed the disconnection between managers and non-managers. At WMATA, managers had a stronger belief than non-managers in the organizations response to safety issues (WMATA, 2010). In an effort to bridge this gap, each month Metro's Local Safety Committee meetings include a frontline representative to discuss safety in the field. Metro has also established numerous programs to communicate safety information to frontline employees. Information contained in the IIPP is presented at New Employee Orientation (NEO), and communicated through brochures and other handouts posted at divisions. Posters at Metro divisions offer advice - "Watch – the invisible Pedestrian", "Safety's 1st: Always

buckle up behind the wheel", and "This is not a part of your uniform" (shows images of cell phones, iPod and Bluetooth). In addition to posters, Metro has developed small, pocket sized cards with safety information for employees. The themes are similar to the posters but include more information. Topics include: "Operate like a Pro", "Driving safely in the rain", and "Intersection safety". All cards include the slogan, "Regarding safety, you're in the driver's seat".

Ongoing Employee Safety Training

Metro and its peers have placed a high standard on employee safety training. Metro has programs to train employees on Occupational Safety and Health Administration (OSHA) topics including blood-borne pathogens, confined space, respiratory protection, hearing conservation, fall protection, hazardous materials communication, CNG, and roadway worker protection. Metrolink has also been actively working to develop its safety culture. In July and August 2011, Metrolink partnered with USC for a Safety Summit, and two-day intensive training course. The safety training program, "Rail System Safety: Safety Culture and Human Performance", was developed based on USC's Viterbi School of Engineering research on aviation safety culture. The class was attended by about 50 senior Metrolink supervisors, operators and experts. Metrolink plans to evolve this program into an in-house four module workshop to educate employees about safety.

Safety Oversight and Understanding Risk

In an effort to increase transparency of the safety impacts of new projects at Metro, a template is being developed for Board reports to denote whether a project will have a positive impact or no impact on safety. Additionally, recently Sam Schwartz Engineering has been hired by Metro to conduct an evaluation of Metro's safety culture. The results of this evaluation will be presented to the Board in May 2012.

Works Cited

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