

## ***TriMet Safety & Service Excellence Task Force***

Meeting Date: Wednesday, August 11, 2010

Start of meeting: 5 p.m.

End of meeting: 7 p.m.

Location: Portland Building (1120 SW 5<sup>th</sup> Ave.)  
Room C – 2<sup>nd</sup> floor

Session: Public Meeting

Task Force Attendees: Tom Walsh [chair], Robert Burchfield, Greg Butler, Jan Campbell, Shirley Carter, Dorothy Elmore, Tony Mehalovich, Deb Meihoff, Roger Pringle, Stephanie Routh, Rob Sadowsky, Amy Weeden

Task Force Absent: None

Consultant [on agenda]: Jim Tucci [K&J Safety and Security Consulting Services]

TriMet Staff [on agenda]: Chris Novotny, Pam Wilson, Josh Collins, Allison Horn [minutes]

TriMet Staff [in attendance]: Neil McFarlane, Dan Caufield, Allen Morgan, Mary Fetsch, Denise Woodward, Jessica Bucciarelli, Tommye Gilbreath, Rhonda Danielson

Public [Organization/Issue]: Jason Barbour, Jay Rovez[?], Erik Gittings, Matt Baccitich [Oregon Operation Lifesaver], Michael Andersen [Portland Afoot], Robert Butler [safety issue], Jamie Hammel, Ryan Hammel

### **Welcome:**

Task force chair Tom Walsh began the meeting by welcoming the members of the Safety & Service Excellence Task Force and those who had taken time from their day to attend today's public session. TriMet General Manager Neil McFarlane expressed his thanks to the members of the task force and reiterated that he is looking forward to the recommendations that will be formed as a result of the important work ahead.

### **Overview of Phase II Report from K&J:**

Mr. Walsh introduced TriMet Operations Communications Manager Josh Collins and James Tucci, president and chief engineer of K&J Safety and Security Consulting Services, Inc. (K&J), to provide an overview of the Phase II Report from K&J. *[Report available at [www.trimet.org](http://www.trimet.org)]*

Mr. Tucci began by describing his professional background, including his qualifications as a Professional Engineer (P.E.), Certified Transit Safety and Security Practitioner (TSITSSP) and member of the National Safety Council. His broad safety and security perspective has been gained through his work with over 100 transit agencies, including Washington Metro Area Transit Authority (WMATA) in the wake of the June 22, 2009, train collision.

TriMet asked K&J to review, analyze and provide a safety system review and evaluation of TriMet policies, procedures and training. Mr. Tucci stated that both the Phase I and Phase II reports were written in such a way to provide clear, concise findings and attainable recommendations.

Though TriMet has a strong and viable system safety program, the K&J Phase I report identified several areas where improvements could be realized and made recommendations accordingly *[See Phase I Report at [www.trimet.org](http://www.trimet.org)]*.

Mr. Tucci began his summary of the Phase II report by expressing his respect for TriMet and the level of executive participation throughout the review process and for the pro-active formation of the Safety & Service Excellence Task Force.

Overall, K&J found that TriMet has many safe and secure operating practices and procedures. In addition, TriMet has made safety and security improvements in recent years that have enhanced its overall safety, security and service quality. K&J commended TriMet on its decision to have the Safety Department report directly to the general manager. This is a reflection of TriMet's overall commitment to the safety, security and high service standards for both its bus and rail operations.

K&J initiated only one finding with one recommendation that could be categorized as a deficiency: the inadequacy of the Bus SOP distribution process. The remaining 21 findings were either commendatory or pertained to opportunities for enhancement of the program or implanting best industry practices.

*Safety Assessment Focus Areas [K&J Recommendations listed per Phase II report]:*

#### **Bus Operations**

- A. Establish a process for effectively distributing Bus SOPs and provide the necessary training to ensure that bus operators know and understand the content and applicability of the Bus SOPs.

## Bus Procurement

- B. Include a member of the Safety Department as part of the Bus Procurement Committee to ensure that safety and security requirements are included in the bus specification and contract.
- C. In addition to the effective and comprehensive maintenance and operations acceptance process for new buses, all new buses should be subjected to a safety and security certification process.

## Safety Certification

- D. Compile the highlighted safety and security certification requirements into a separate Safety and Security Requirements Chapter in the next revision of TriMet's Design Criteria Manual.
- E. Evaluate the feasibility of having dedicated TriMet safety staff assigned to monitoring contractors' construction safety programs.
- F. As stated in Recommendation C, TriMet should include all new buses in the safety and security certification process.

## Rail Operations

- G. Review Operator Observation Ride forms regularly and ensure any hazards identified in the forms are entered into the Hazard Management Log and tracked to closure.

## General Manager

Mr. Tucci commented that it is not common to have access to the chief executive [general manager] when coming in to conduct a safety review at an organization. He had no recommendations for this focus area.

## Drug & Alcohol Testing

- H. Consider restricting an employee from working in a safety sensitive position pending the results of post-accident testing.

## Accident Review Boards and Safety Committees

- I. The three-step process exceeds the standards outlined by the National Safety Council. Mr. Tucci indicated that the TriMet Training Department functions hand-in-hand with the Safety Department through this process. He recommended that TriMet continue its innovative, very effective Accident Review Board and Appeals process.

## Data and Reporting

- J. Periodically review the process to refer accidents to the Accident Review Board to ensure the continued success and effectiveness of the process.

## Planning and Scheduling

- K. Consider inviting Service Planning and Scheduling Department staff to a future employee safety committee meeting (perhaps with expanded bus operator participation) to discuss the bus route scheduling process.

## Emergency/Incident Communications and Operator Outreach

- L. Consider having the PIO routinely respond to scenes of major incidents to manage and respond to the media personnel who are on the scene.
- M. Expand process for developing proactive, “good news” stories about TriMet personnel and activities to forward to the media, including news about safety and security information and community outreach programs.
- N. Encourage managers to spend more time in the field and become more available to frontline personnel.

## General Observation

- O. The predecessor agency to the Federal Transit Administration—the Urban Mass Transportation Administration—provided a suggested ratio of staffing levels in a safety department. Based on that ratio, TriMet appears to be understaffed. He suggests reviewing the current safety department staffing levels and provide additional staff as appropriate.

Mr. Tucci reiterated his philosophy that safety is a constant process, requiring continuous effort for continuous improvement. Mr. Tucci also emphasized his belief that the cornerstone of any safety program is to identify and address hazards. He stated that the safety benchmark is not the number of accidents, but rather the number of hazards that are identified and mitigated—thereby reducing the potential for accidents to occur.

Mr. Walsh asked Mr. Tucci about the relationship between the Training Department and the Safety Department. Mr. Tucci responded that there is a strong interface between departments, citing the accident review and appeals process at TriMet. Although, he acknowledged, if you’re good at reviewing accidents, it means you have accidents to review. He would encourage TriMet to develop a hazard analysis program as comprehensive as the accident review and appeals process and the Transit Change Review Committee’s (TCRC) urgent accident review.

Task force member Roger Pringle inquired about TriMet’s current hazard analysis program. Mr. Tucci responded that while there was a hazard analysis process in place, it was not an emphasized process. There are a large number of hazard identifiers—operators, training supervisors, road supervisors, maintenance helpers, etc.—but an understaffed safety department to perform the scope of their current mission, not to mention the forthcoming mission that will be laid out by the task force.

Mr. Pringle asked about the current reporting structure of the Safety Department. Mr. Tucci responded that the reporting structure was currently being reorganized so that the new Safety & Security Director would report directly to the General Manager [a recommendation of the

Federal Transportation Administration (FTA), National Transportation Safety Board (NTSB), National Traffic Safety Institute (NTSI) and the Phase I K&J Report].

Task force member Amy Weeden asked Mr. Tucci to share some of the characteristics that are the hallmark of the best transit agency safety programs. Mr. Tucci said that the key to a safety-first culture is hazard identification—by all employees at all levels of the organization. He emphasized that the Safety Department should not be the water bearer for the entire organization; rather, everyone is responsible for safety. He mentioned the importance of Personal Protective Equipment (PPE) in maintenance functions—not only the use of it, but the understanding behind the use. He mentioned operators identifying road hazards and putting safety first [i.e., above schedules and on-time-performance]. He mentioned the concept of having a safety element as part of all new employee orientation programs.

Ms. Weeden then asked Mr. Tucci to talk about the communication strategies within an agency regarding safety concerns and hazard identification. Mr. Tucci responded that communication on safety must be top-down and bottom-up so that its importance is felt at every level of the organization. He shared that safety should be measured in the number of hazards identified and the number of hazards mitigated. While you can't quantify accidents/incidents avoided, you can measure the strength of a safety program/culture through audits, inspections, spot observations and defect reports.

Task force member Rob Sadowsky asked about the communication flow both inter-departmentally at TriMet and with partners outside of the agency. Mr. Tucci responded that inter-agency communication was not part of the scope of their review, but that inter-departmental communication within TriMet was very strong, citing examples such as the Accident Review Board and TCRC Urgent Review process. He also talked about the role of the Transit Police Division as the policy side of hazard analysis and their presence being a proactive visual deterrent. Through threat vulnerability assessments, TriMet has also shown a willingness to design against crimes [i.e., landscaping, lighting, etc.].

Mr. Pringle asked if there was data available that could pin-point the number one cause of accidents. Mr. Tucci responded that 98.9% of all accidents are caused by human error [citing the National Safety Council (NSC) and National Transit Database (NTB)].

Task force member Tony Mehalovich asked about hazard analysis and the role of operators. Mr. Tucci responded that training is an effective way to raise awareness of hazard analysis—emphasizing why we do what we do [i.e., show the direct relationship between duties and hazard identification]. He also talked about maintenance checklists being linked to hazard analysis.

Task force member Deb Meihoff asked Mr. Tucci to expand upon the cooperative and collaborative link between TriMet's safety and training departments [as mentioned in the Phase II Report]. Mr. Tucci responded that it appeared to be culturally unique to TriMet. While he acknowledged that retirements or loss of current staff could have an impact, he felt the

collaborative spirit went well beyond particular individuals. He said that the Training Department has evolved to have strong safety application, and in fact, felt as though the Training Department was almost an extension of the Safety Department in many ways.

Given the collaborative link between TriMet's safety and training departments, Ms. Weeden asked for clarification on the factors that lead to the K&J recommendation that the safety department staff should be increased. Mr. Tucci drew upon his recent experience with WMATA, which was widely considered the premiere safety program in the transit industry before the June 22, 2009, train collision fatality.

Mr. Tucci emphasized that it takes longer to climb uphill than it does to slide downhill, and that seemingly small factors contribute to the decline. Examining the reporting structure of the safety department—is it buried or does it have direct access to executive management? What is the employee safety committee membership and activity level? Is the Safety Department valued or viewed as impediments to efficiency?

He said that to excel, a transit agency should have a safety culture woven into the fabric of the agency, where everything is viewed through a safety lens. Mr. Tucci commented that TriMet's executive leadership is whole-heartedly committed to safety and core building blocks exist to be the premiere safety program in the transit industry.

Ms. Weeden asked about the number of safety department employees, the depth of their expertise and whether they were fully integrated into the operations [i.e., not isolated, not cops]. Mr. Tucci responded that members of the Safety Department should be considered as consultants, not cops—and should be staffed in such a way to provide assistance and help. He also said that hiring safety professionals from within can present some challenges—for example, it may be difficult for a mechanic to be perceived as a safety expert after years of marginalizing the safety department by being a “what-not-to-do” example.

Task force member and TriMet bus operator Shirley Carter commented about her frustrations with the current Yellow Card process [a method for providing feedback to managers about conditions in the field], giving an example of identifying a hazard via a Yellow Card and then receiving no response from management. Ms. Carter said that the lack of response sabotages the credibility of the Yellow Card program among operators, saying many of her co-workers won't complete a Yellow Card because they think it's a waste of time [because the issue won't be resolved]. Mr. Tucci confirmed that there appeared to be a disjoint between hazard identification [i.e., the Yellow Card] and seeing resolution or communication back to the employee.

Task force member Rob Burchfield asked about TriMet's use of incident data as a way of screening for potential hazards. Mr. Tucci commented about safety data acquisition for events that occur on the system that are captured in the System Safety Program Plan [SSPP], such as near misses, collisions and fatalities. However, he would recommend that TriMet collect pre-

incident data [i.e., reactive approach] and use “near miss” data to focus mitigation efforts [i.e., proactive approach].

Mr. Burchfield asked about incident data that does not involve an operator. Mr. Tucci responded by explaining some of the capabilities of TriMet’s Accident/Incident Database (ACID), where previous accidents/incidents at a specific location could be queried, for example. He also talked about how the Training Department incorporates the experience of previous operators into the training curriculum and ongoing check rides. Director of Operations Planning & Development Dan Caufield commented that ACID has the ability to be queried in many different ways, but does not integrate non-TriMet data and does not currently have staff dedicated to such queries.

Mr. Pringle asked Mr. Tucci if he would be willing to share the names of some of the top transit agencies with regard to safety that he has encountered or worked with over the years. Mr. Tucci responded that the Charlotte Area Transit System (CATS) in Charlotte, NC, would be at the top of his list for the integrated training/safety integration, lowest incident rates, zero grade crossing accidents and only one preventable accident (PA) within the past seven years. He also mentioned Bay Area Rapid Transit (BART) in Oakland, CA, for their rail system safety [low PA/non-PA per passenger trip].

Task force member Stephanie Routh asked how the Bus Stops Guidelines manual can be kept up-to-date in an ever-changing transit environment. Mr. Tucci responded that while the presence of the Bus Stops Guidelines manual is commendable, the efforts to review the document should be continuous and ongoing. It should be regularly reviewed and updated to address unique stop locations and the realities of each bus stop environment (bicycles, traffic patterns, pedestrians, etc.).

Mr. Walsh predicted that within five years, TriMet will be in a league all by themselves because of their safety-first attitude. He further described the safety-first attitude as being articulated as, “There is nothing more important than safety.”

#### **Innovative Roadway/Crossing Design Discussion:**

Mr. Walsh introduced TriMet Operations Communications Manager Josh Collins to discuss some of the innovative roadway/crossing designs [see *Phase I K&J report*]. Things such as the separation of pedestrian and vehicle turning movements, innovative roadway/crossing treatments, “talking buses” and the pedestrian scramble are all things that TriMet cannot do without the input of other stakeholders.

Mr. Mehalovich was asked to speak about his experiences with United Parcel Service (UPS) where he currently is responsible for facilitating corporate training. He spoke of the importance of driver skill, visibility, good communication and eye contact as being factors in reducing the risk associated with simultaneous pedestrian/vehicle movement.

Mr. Walsh asked about how you train operators to focus. Mr. Mehalovich explained that UPS does it through annual driver recertification training that emphasizes defensive driving techniques such as recognizing hazards before they happen, space, visibility, vigilance and situational awareness.

Task force member Dorothy Elmore added that there must be an understanding—whether verbal or non-verbal—that establishes the right of way. Mr. Sadowsky pointed out that visual indicators, such as pavement-based LEDs, are not useful for those citizens who have visual impairments.

Mr. Tucci commented that the elimination of all left-hand turns from bus routes would be a reaction. The elimination of left-hand turns should be evaluated on an individual basis using applied science and hazard analysis—not all left-hand turns are bad. He pointed out that UPS initially eliminated left-hand turns as a means to reduce gas consumption, not because left-hand turns were inherently bad.

In fact, he pointed out that when transit agencies in Cincinnati and Boise eliminated left-hand turns, the result was a two-fold increase in right-hand turn incidents [with some as or more severe as TriMet's April 24, 2010, fatality]. He used this example to illustrate the importance of hazard analysis and to re-emphasize operator vigilance and situational awareness, rather than reactions that may not address the core safety issue.

Ms. Routh asked about why mid-block stops are listed as a last resort in the Bus Stops Guidelines manual. Mr. Tucci explained that mid-block stops are associated with higher incident rates, increased pedestrian hazards (i.e., unsafe options) and are harder for operators to navigate.

Ms. Routh asked whether there are data to make a distinction between safety and amenities at bus stop locations. Mr. Tucci responded that there was no baseline for comparison of bus stop amenities.

Mr. Pringle, in an effort to understand the cause of a problem, asked about data that would speak to who was at fault in a particular event [i.e., operator, pedestrian, bicyclist, customer, etc.]. Mr. Tucci said that data is available, but it is agency-by-agency. The National Transit Database (NTD) provides data on injuries and fatalities, but does not provide further clarifying data. TriMet's Accident Review Board would provide an investigation and finding [preventable (PA), non-preventable (NPA) or security related incident (SRI)] and would list the causal/contributing factors to the finding.

Ms. Weeden inquired about how to measure the success of public awareness campaigns that target a variety of audiences [i.e., public, pedestrians, bicyclists, etc.]. Mr. Tucci responded that the only measurement tool is to reduce the rate of incidents associated with each group. He described a variety of public awareness campaigns targeted at advocacy, outreach, the disabled community, bicyclists and even surfers [carrying surfboards on transit system in Hawaii].



Ms. Weeden followed up by asking about how to utilize general pedestrians/public to raise awareness/understanding. Mr. Tucci responded that Portland is unique and shared some techniques that have been successfully used by other transit agencies, specifically CATS [Charlotte, NC], such as blogging, public chat rooms, weekly safety outreach efforts in schools, weekly outreach to community user groups, Operation Lifesaver and partnering with the DMV to further educate youth drivers [adding grade-crossing safety questions to exam]. Overall, he encouraged TriMet to seize opportunities to broadcast the positives about the agency and its safety efforts/attitude.

Ms. Routh talked about the decision to place bus routes along arterials and highway by-passes, which have higher speed limits and increases the chances of vehicle/pedestrian interaction. She wondered about the possibility of utilizing peripheral streets and/or less-direct routes to potentially minimize pedestrian interaction/incidents.

Mr. Tucci responded that a systems approach to safety requires that the run cut criteria be changed [i.e., move away from valuing on-time-performance efficiency as the number one criteria]. Mr. Tucci said that ideally the run cut should also take into account the “hazards” on each route that might impact safety [and perhaps scheduled run time]—boardings of persons using mobility devices, traffic hazards, busy driveways, pedestrian movements, etc.

Mr. Walsh stated that this systems approach to safety should really be a driving ethic of the Safety and Service Excellence Task Force.

Ms. Meihoff asked about the opportunities for municipal collaboration on innovative roadway/crossing design since TriMet operates in multiple jurisdictions. Ms. Routh suggested a potential forum may be the newly formed Technology Advisory Committee. Mr. Burchfield agreed that this would be a good forum as most all safety and performance jurisdictions in the region are represented.

Mr. Walsh asked if there were any other comments on innovative technology that haven’t yet been discussed. Mr. Burchfield stated that discussing the potential innovative technology solutions felt a bit pre-mature—much like a solution looking for a problem. He expressed his desire to understand the problem we’re trying to mitigate and then discuss potential technological solutions, rather than talk about them in such a broad context.

**Public Comment:**

Mr. Walsh invited Ryan Hammel to speak because he needed to leave prior to the public comment section of the agenda. Mr. Hammel is a survivor of the April 24, 2010, bus crash in downtown Portland, in which his sister, Jenee Hammel, was killed. Mr. Hammel expressed that he wanted to come and be a part of the meeting. He stated that if he had heard any kind of audio signal, he would have been more aware of the bus’ presence. He felt that if the operator had to make an announcement, such as “Left-hand turn”, or if the bus would have made some

kind of audible warning that it was about to turn, he might not have to be at this meeting today.

**Public Outreach on Safety (schools, Capital Projects, Operation Life Saver, etc.):**

Mr. Walsh introduced TriMet Marketing Manager Pam Wilson and TriMet Community Relations Manager for Commuter Rail Chris Novotny to discuss public outreach efforts related to safety [See PowerPoint presentation at [www.trimet.org](http://www.trimet.org)].

Ms. Novotny began by talking about how marketing and capital projects work together on safety outreach messages, tools and channels, and how these messages are integrated into ongoing marketing efforts. She also talked about the intensive safety outreach that occurs as projects are built [i.e., project-specific outreach] and as the environment and traffic patterns change, citing examples from outreach performed during the construction of the Westside Express Service (WES Commuter Rail).

Ms. Wilson talked about how safety messages are integrated with many other ongoing communication tools and channels. TriMet has a lot of points of contact where people receive safety messages—the goal is safety education, every day, every rider, every trip.

TriMet has targeted youth for messaging because of their traditionally high-risk behaviors. TriMet leverages our points of contact and relationships with schools and other community partners in order to reach them effectively. TriMet uses several general message strategies, generally showing the desirable behaviors and tailor messages to convey desirable actions for WES, bus and MAX.

Ms. Wilson shared some of TriMet's strategies and tools for reaching:

- Grade School students:
  - Earl P. Nutt materials
  - Website section for teachers
  - Reminder mailing
  - Integration of safety education in field trip process
  
- Middle School students:
  - Annual back-to-school kits
  - Posters
  - Presentation upon request
  - Social media
  - Channel cards
  
- High School students:
  - Fliers to parents
  - Back-to-school kits and posters

- Peer-to-peer outreach
- Ads near schools
- Visibility at sports events
- Presentations – Driver’s Education
- Social media
- Kids & others outside of school:
  - Movie ads
  - Public events
  - Partner outreach
  - Outreach at skate park
  - Presentations to school bus drivers
  - “Safety Days”

Ms. Wilson indicated that the ideal scenario is to have a student see a safety message at school, a safety ad at the shelter while waiting for the bus, safety messages inside the bus, safety messages as part of on-street signage, then go to the movies and see a safety message there.

TriMet also strives to leverage resources through work with partners, like the Bicycle Transportation Alliance (BTA) to reach bicycle riders through:

- “Share the Road” messaging included in curriculum for various programs.
- Outreach provided at 4-6 bike events a year.
- Integrating general bike safety messages into TriMet’s “How to Ride” information.
- Ads produced in conjunction with partners.

Ms. Weeden asked what percentage of budget was dedicated to safety outreach and if there was a standard throughout the industry. Ms. Wilson responded that annually TriMet spends about \$40-\$50,000 on safety outreach efforts, which is about 50% of TriMet’s outreach budget. Ms. Elmore testified that the safety outreach messages successfully reached her 17-year old son. Ms. Routh said that she thought the coasters were an inspired choice to communicate with the public.

Mr. Walsh asked about Operation Life Saver. Ms. Novotny explained that Operation Lifesaver is a non-profit, international continuing public education program first established in 1972 to end collisions, deaths and injuries at places where roadways cross train tracks, and on railroad rights-of-way. Operation Lifesaver programs are sponsored cooperatively by federal, state and local government agencies; highway safety organizations and the nation’s railroads [*see [www.oli.org](http://www.oli.org) for more information*].

Mr. Pringle asked if there are objective measures available to quantify or measure the impact of the safety outreach efforts. Ms. Wilson responded that TriMet does not typically spend the money for recall studies [which measure your level of recall pre- and post-message]. Anecdotal evidence from focus group participants, however, shows that recall of the safety outreach messages is high.

**Public Comment:**

Mr. Walsh invited Matt Baccitich [Oregon Operation Lifesaver] to speak. Mr. Baccitich is the Oregon State Coordinator for Operation Lifesaver and gave a brief description of the mission of Operation Lifesaver [see [www.oli.org](http://www.oli.org) for more information]. He also spoke about the early safety outreach partnership between TriMet and Operation Lifesaver prior to WES Commuter Rail service, and his willingness to explore new ways to expand the partnership.

Mr. Walsh invited Robert Butler to speak. Mr. Butler began by giving his address and phone number for the record. He then complimented Ms. Carter with regard to her earlier comment about Yellow Cards, and her willingness to speak truthfully about the lack of follow up. He testified that he has been working with TriMet staff over the past 18-months to try to solve a safety problem and has yet to satisfactorily resolve his issue. Without stating his issue or naming any TriMet staff members he has contacted, Mr. Butler stated that “TriMet does not care about follow-up,” and challenged the Task Force to answer the question, “Did resolution [with my issue] occur?” On behalf of the Task Force, Mr. Walsh accepted the challenge and agreed to provide Mr. Butler with follow-up to his issue at the next public session of the task force [scheduled for 9/22/10].

**Chair’s Close:**

Ms. Routh made a comment with regard to the public outreach, suggesting that a citizen’s review board might be a way to accept public comments proactively and incorporate that information into decision-making.

Mr. Walsh adjourned the meeting.

**Next Public Meeting:**

Wednesday, September 22, 2010 from 5-7pm @ Portland Building – Room C