



August 16, 2010

The Honorable Barbara A. Mikulski
United States Senate
503 Hart Senate Office Building
Washington, DC 20510

Dear Senator Mikulski:

We at Metro took extremely seriously the National Transportation Safety Board (NTSB) finding that we could have done more to anticipate and avoid the tragic accident on June 22, 2009. We are determined to do everything in our power to assure that such an accident will never happen again. Safety is the absolute top priority at Metro - for every member of the Metro Board, for all of management, and for our staff. We have already taken, and will continue to implement, actions to enhance the safety of our system for our passengers, for our employees, and for the general public.

Below is a response to each of the requests in the Washington Area Congressional delegation's letter of August 5, 2010. The request is repeated in italics, followed by our reply.

First, we want to know how you plan to implement a SAFETY CULTURE at Metro. We find some comfort in knowing that the NTSB believes Metro is safer today than it was last year. However, the NTSB made it very clear that much more needs to be done at Metro, starting at the top, to improve safety and operational reliability for both riders and workers.

Prior to last year's accident, all of us at Metro had accepted our 25-year record of no rail passenger deaths and relatively few passenger injuries as an indication of our superior safety as a transit system. That clearly was not correct, and with the June 22 accident we lost our innocence. We know that we have to make major changes, and we have been, and will continue to, do so.

You may be aware that in January, well before the NTSB report, we approached the USDOT, the AFL-CIO, and APTA, and asked them to assist us in the difficult task of establishing a true safety culture at Metro, one in which safety is an integral part of everything we do for everyone,

Washington
Metropolitan Area
Transit Authority

600 Fifth Street, NW
Washington, DC 20001
202/962-1234

By Metrorail:
Judiciary Square—Red Line
Gallery Place-Chinatown—
Red, Green and
Yellow Lines
By Metrobus:
Routes D1, D3, D6, P6,
70, 71, 80, X2

A District of Columbia,
Maryland and Virginia
Transit Partnership

from the Board through senior management, middle management, and supervisors to every mechanic, track walker, bus or train operator, and station manager.

USDOT put together a team of several modal administrators and safety officials who suggested an approach using top experts in safety culture in the nation, proposing activities to be undertaken, deliverables, and information sources. USDOT made specific suggestions for a team of safety culture experts with experience in other modes of transportation to help us at Metro, and also offered to establish a "Blue Team" of its own internal staff to provide input and feedback as the effort progresses. AFL-CIO suggested safety experts with extensive labor experience, and APTA provided direct safety staff knowledgeable about transit. That team is hard at work, and will not only report to us on actions to be taken, but will guide us in implementing the changes.

We are under no illusions. We understand that changing an agency's culture will be a long and difficult task, but we are committed to it. We also know that we cannot wait to begin making changes to our culture, and even before the expert team was in place we had hired a new Chief Safety Officer reporting directly to the General Manager and fully staffed the Safety Office, expanded safety training, and integrated the safety staff into field operations. We also conducted a survey of staff to determine their current view of safety and safety awareness, with 97% participation. And we established several task forces comprised of safety personnel, operational staff, labor representatives, and managers to review and revise our procedures to make them safety-sensitive as well as more workable and streamlined. The Board revised the Authority's whistleblower policy to encourage staff to report safety issues, established a safety hotline, and directed the creation of a system to track reported safety issues and their disposition. All of this is the beginning of a continuing and expanding effort which the Board will monitor as part of its safety responsibilities.

Second, we want to know how you plan to implement NTSB's recommendations that cost a minimum amount of money.

- 1. Elevate the safety oversight role of the WMATA Board of Directors by (1) developing a policy statement to explicitly and publicly assume the responsibility for continual oversight of system safety, (2) implementing processes to exercise oversight of system safety,*

including appropriate proactive performance metrics, and (3) evaluating actions taken in response to National Transportation Safety Board and Federal Transit Administration recommendations, as well as the status of open corrective action plans and the results of audits conducted by the Tri-State Oversight Committee.

As you are aware, the Metro Board of Directors has met with the NTSB members to clarify the actions that we should be taking to enhance safety at Metro. This was an unprecedented and very valuable meeting, for which we thank the NTSB members. The Metro Board will be taking action at its meeting in September to strengthen and to reaffirm its commitment to safety and its oversight responsibilities. At that meeting we will reestablish the Board Safety Committee, with a charter which encompasses all of the NTSB recommendations.

The Board will review and propose changes to the Metro System Safety Plan and the Board policy statement included within it. Even before that review is completed, we will, at our September meeting, reaffirm through a resolution that safety is our number one priority, we will modify our Board procedures to include an explicit statement that safety oversight is a key function of the Board, and we will change the WMATA mission statement to emphasize the importance and central role of safety. We will also adopt a resolution that it is the intent of the Board to assure the implementation of all the recommendations by the NTSB to WMATA as a result of its review of the June 22, 2009 accident. We want to convey clearly the message that safety responsibility starts at the top.

The Board is now receiving monthly reports from the Chief Safety Officer, and we have already enhanced the set of safety and security metrics which he presents to the Board to strengthen our oversight role. This is an area that we discussed with the NTSB at our meeting with them; we will continue to refine the information we receive. We are also receiving status reports from our Chief Safety Officer on all outstanding safety recommendations made by FTA, TOC, and NTSB, and have asked our independent Inspector General to continually review progress on these corrective actions and report any delays or issues directly to the Board. We have asked the TOC to meet with the Board quarterly to assure that all issues are being dealt with adequately, and are working with the two states and the District to strengthen the capabilities of the TOC. We are making known Metro's strong support for a Federal role in setting and enforcing safety standards for transit systems.

- 2. Establish periodic inspection and maintenance procedures to examine all audio frequency track circuit modules within the Metrorail system to identify and remove from service any modules that exhibit pulse-type parasitic oscillation.*

Beginning in November we will increase the frequency of our inspections of audio frequency track circuit modules within the rail system from annually to quarterly. We will continue the loss of shunt review twice daily until testing is completed on the real-time alert system and we can implement it. In both cases, we will inspect and replace modules which exhibit parasitic oscillation.

- 3. Review the process by which Metrorail technical bulletins and other safety information are provided to employees and revise that process as necessary to ensure that (1) employees have received the information intended for them, (2) employees understand the actions to be taken in response to the information, and (3) employees take the appropriate actions.*

We have established a cross-functional committee to develop procedures that ensure clear communication and document receipt of all technical bulletins and other safety-related information. We will begin to put these procedures in place within the next 60 days. We will also work with our supervisors to ensure that individual employees understand and carry out their responsibilities outlined in the procedures.

- 4. Completely remove the unnecessary Metrorail wayside maintenance communication system to eliminate its potential for interfering with the proper functioning of the train control system.*

We are currently working to identify all locations throughout the rail system where unnecessary wayside communication equipment exists, and are developing a plan to disable and/or remove it. We anticipate beginning the first phase of removal by December, and expect that the costs will be substantial.

- 5. Require that your safety department; representatives of the operations, maintenance, and engineering departments; and representatives of labor organizations regularly review recorded operational data from Metrorail train onboard recorders and the*

Advanced Information Management system to identify safety issues and trends and share the results across all divisions of your organization.

Senior staff, including the Chief Safety Officer, meet monthly to review data on reliability, maintenance and engineering, and then to develop trend analyses. We will include a review of the data from onboard recorders installed on rail cars in these meetings. Local 689 union representatives have agreed to participate in the meetings as well. The results of these analyses will be made available across the organization.

6. *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.*

As mentioned previously, we have already strengthened the Authority's whistleblower protection policy and we have established a safety hotline for employees to anonymously report safety concerns. But we consider these mechanisms a last resort. We want to encourage employees further to ensure that they identify and report problems, and that their reports will be taken seriously by their supervisors. To that end, we have initiated discussions with Local 689 to establish a procedure and program for the reporting of near misses without punitive consequences. To reinforce their desire to report we will institute a tracking system for all safety issues reported to ensure that appropriate action is taken and that results are provided to all applicable areas of management, labor, and the Board.

7. *Review the Hazard Identification and Resolution Matrix process in your system safety program plan to ensure that safety-critical systems such as the automatic train control system and its subsystem components are assigned appropriate levels of risk in light of the issues identified in this accident.*

An Executive Staff Safety Committee will review the hazard identification and hazard management process and will report to the Board. The results will be incorporated into the Board review of the System Safety Program Plan.

- 8. Develop a formal process by which the General Manager and managers responsible for WMATA operations, maintenance, and engineering will periodically review, in collaboration with the chief safety officer, all safety audits and open corrective action plans, and modify policy, identify and commit resources, and initiate any other action necessary to ensure that the plans are adequately addressed and closed within the required time frame.*

As part of its monthly meetings, the Executive Staff Safety Committee will review safety audits, open corrective action plans and take the necessary steps to adequately address the corrective actions in a timely manner. The results will be reported to the Board Safety Committee and reviewed independently by the Inspector General.

Third, we want to know how you plan to implement the recommendations that have a cost. We also want your estimated budget for these items.

- 1. Remove all 1000-series railcars as soon as possible and replace them with cars that have crashworthiness collision protection at least comparable to the 6000-series railcars.*

The Board of Directors recently approved a contract to replace the 1000 series railcars, the oldest cars in the fleet, with new generation 7000 series rail cars. The new cars will be equipped with advanced crashworthiness technology and also represent the first significant change in the state of the art in railcar design and technology for the Metro fleet since the first cars were purchased 35 years ago. The timing of the removal of the existing 1000 series cars from service was discussed with the NTSB at our meeting with them. Staff will examine the service and safety impacts of removing the 1000 series cars from service, or other operational alternatives, and report back to the Board. **Cost of replacing all 300 of the 1000 series railcars with new cars: \$835M**

- 2. Because of the susceptibility to pulse-type parasitic oscillation that can cause a loss of train detection by the Generation 2 GRS audio frequency track circuit modules, establish a program to permanently remove from service all of these modules within the Metrorail system.*

We have already replaced modules at 34 locations in the system, are in the process of replacing eight more and are planning to replace modules at the remaining 61 locations. Staff will soon present the full expedited replacement plan to the Board, which will monitor the progress of the program. **Preliminary estimated cost of replacing all modules: \$55M**

- 3. Conduct a comprehensive safety analysis of the Metrorail automatic train control system to evaluate all foreseeable failures of this system that could result in a loss of train separation, and work with your train control equipment manufacturers to address in that analysis all potential failure modes that could cause a loss of train detection, including parasitic oscillation, cable faults and placement, and corrugated rail.*

We have already retained an independent firm to perform a rigorous safety analysis of the automatic train control system and provide recommendations to address potential failures identified as a result of the analysis. **Preliminary estimated cost of analysis: \$25M**

- 4. Based on the findings of the safety analysis recommended in the previous recommendation, incorporate the design, operational, and maintenance controls necessary to address potential failures in the automatic train control system.*

We are committed to implementing the results of the analysis undertaken. **Costs will not be known until the analysis is complete.**

- 5. Implement cable insulation resistance testing as part of Metrorail's periodic maintenance program.*

We will perform nightly cable insulation resistance testing and will also conduct a larger comprehensive cabling maintenance review. **Preliminary estimated cost of testing for three years: \$10M**

- 6. Work with the Tri-State Oversight Committee to satisfactorily address the recommendations contained in the Federal Transit Administration's March 4, 2010, final report of its audit of the Tri-State Oversight Committee and WMATA.*

We have submitted our initial response from the recent Federal Transit Administration audit to the Tri-State Oversight Committee in April and

have provided an update on our activity to the Tri-State Oversight Committee and Federal Transit Administration's Office of Safety and Security last week. We will submit our status report to the Federal Transit Administration and Tri-State Oversight Committee before the August 30 deadline. **No cost for the submittals beyond Metro staff time.**

7. *Ensure that the lead married-pair car set of each train is equipped with an operating onboard event recorder.*

We will equip the 4000 and 1000 series cars with onboard event recorders. The 2000, 3000, 5000 and 6000 series cars are already equipped with event recorders. **Preliminary estimated cost: \$9M**

8. *Develop and implement a program to monitor the performance of onboard event recorders and ensure they are functioning properly.*

We are developing an enhanced maintenance program for the onboard event recorders to be incorporated in the regular car equipment preventive maintenance and inspection process. Our target is to implement this beginning in November. **Preliminary estimated cost: \$1M**

I hope that you will agree that we are taking the NTSB recommendations seriously and are moving forward as quickly as possible to deal with all the issues raised and more. We are committed to safety as our top priority and will do what is necessary to make our system as safe as it can be. We look forward to meeting with you in the fall and reporting on our continuing efforts.

Sincerely,



Peter Benjamin, Chair
Board of Directors