

WASHINGTON METRORAIL SAFETY COMMISSION

Date: Tuesday, December 10, 2019
Location: Ronald F. Kirby Training Center
777 North Capitol Street NE
Washington, DC 20002

MINUTES

| Agenda Item# | Items |
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| | <p>Attendance. Commissioners present: Chair Christopher Hart, Commissioners Robert Bobb, Debra Farrar-Dyke, John Contestabile, Greg Hull and Suhair Al Khatib (alternate). Via phone: None.</p> |
| 1. | <p>Call to Order. WMSC Chair Hart called the meeting to order. Roll call was taken, and a quorum was achieved.</p> |
| 2. | <p>Safety Message. WMSC COO Ms. Sharmila Samarasinghe outlined emergency exit procedures for evacuating the Kirby Center. Ms. Samarasinghe also provided the safety message for the day, discussing Christmas tree and holiday-related fire prevention efforts.</p> |
| 3. | <p>Approval of the minutes of the October 8, 2019 meeting. A motion was made to approve the minutes of the October 8, 2019 public meeting. The motion was seconded.</p> <p><u>ACTION:</u> The minutes of the October 8, 2019 meeting were unanimously approved.</p> |
| 4. | <p>Public Comments. Chair Hart invited comments from members of the public, but no members of the public rose to speak.</p> |
| 5. | <p>Chair’s Remarks. Chair Hart welcomed attendees to the public meeting. Chair Hart noted that Ms. Samarasinghe, the WMSC’s Chief Operating Officer, would be serving in the capacity of Dr. Mayer, the WMSC’s CEO, for the meeting.</p> <p>Chair Hart then noted that since the last WMSC meeting, Gov. Larry Hogan of Maryland had appointed John Contestabile as a commissioner. Commissioner Contestabile had been serving as Maryland’s alternate commissioner. Replacing him as the alternate commissioner would be Suhair Al Khatib. Chair Hart congratulated them both.</p> |

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| | <p>Chair Hart also noted that Howard Roberts’ time as a commissioner had come to an end, and Chair Hart thanked him for his hard work and dedication in standing up the WMSC during its crucial beginning phase.</p> <p>Finally, Chair Hart stated that the meeting would involve the following matters: receiving an update on the investigation into the collision that occurred on October 7, receiving an update on several new Corrective Action Plans (CAPs) that the WMSC was requiring Metro to develop, getting an update from the WMSC Finance and Operation Committee, considering the adoption of a new procurement manual for the WMSC, and receiving an update on an event that morning on the Red Line.</p> |
| <p>6.</p> | <p>CEO’s Remarks. Ms. Samarasinghe, serving as acting CEO in the absence of CEO David Mayer, provided the following comments:</p> <p>Ms. Samarasinghe reported that the WMSC was operating completely independently of MWCOG and thanked MWCOG for its role in standing up the WMSC.</p> <p>Ms. Samarasinghe noted the meeting would include details of the CAPs the WMSC was requiring of Metrorail.</p> <p>Ms. Samarasinghe discussed the WMSC’s awareness of a disruption that morning on the Red Line due to an arcing insulator and that the WMSC was monitoring the response activities and gathering additional details. Commissioners Hull and Contestabile noted positive experiences they had had on Metrorail’s Red Line that morning during the disruption, commending their respective train operators.</p> <p>Ms. Samarasinghe discussed the “engineering summit” that Dr. Mayer called for the day following the October 7 collision. The purpose of the summit was to discuss possible engineering control mechanisms for operating trains in “stop and proceed” when a train loses speed commands. The engineering summit was held on October 17 with wide participation from executive, management and technical representation by Metrorail. The engineering summit and subsequent conversations with Metrorail personnel provided the WMSC with extensive information, including about a fleet-wide “mode awareness tool” – or MAT – that prompts the train operator, who must be following Rule 3.79, for a unique code each time speed commands are lost and the train operator still needs to move the train.</p> <p>Ms. Samarasinghe noted the WMSC was pleased that Metrorail had committed to providing the mode awareness tool to its entire revenue fleet, however, the WMSC’s assessment indicated the need for more effort to prevent the unauthorized movement of trains without speed commands. For example, on October 20, 2019, at 1607 hours, Train No. 908 operated past red signal D13-08 at the New Carrollton station platform. Also, on November 17, 2019, at 0756 hours, Train No. 607 operated past red signal G98-32 at Largo station Tail Track 2. Both these incidents involved 7000-series trains with the mode awareness tool modification. These incidents suggest that the mode awareness tool is not sufficient to ensure compliance with Rule 3.79. The WMSC issued a set of findings on November 25, 2019 that included directions to WMATA to research,</p> |

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| | <p>design and propose to the WMSC sufficient protections against the unauthorized movement of trains with lost speed commands.</p> |
| <p>7.</p> | <p>Investigations. WMSC COO Sharmila Samarasinghe briefed the WMSC on more details of the October 7 incident.</p> <p>Ms. Samarasinghe noted that at approximately 0048 hours, on October 7, 2019, inbound six-car non-revenue Train No. 700 collided with stationary six-car non-revenue Train No. 755 at Chain Marker C1 052+00, approximately 600 feet west of the Farragut West station limits. At the time of the incident, Train No. 755 was stationary and awaiting a clear signal (i.e., a speed command) due to another train ahead and within the Farragut West station limits. The collision occurred after the operator of Train No. 700 moved the train without receiving a speed command and without obtaining permission from the Rail Operations Control Center (ROCC), is contrary to the requirements of Metrorail MSRPH Rule 3.79.</p> <p>Ms. Samarasinghe noted the investigation thus far had established that the designed systems, automatic train control, communications, track and structures, and the rail vehicles performed per the specified performance metrics. Metrorail continues its efforts, with scrutiny by the WMSC, on work to conclude this investigation. And consistent with the WMSC’s mandate, this investigation will produce an investigation report that would be presented at a future public meeting of the WMSC for its adoption.</p> <p>Ms. Samarasinghe noted the WMSC did not have any reports for adoption at the meeting, but that there were many investigations at various stages of development by Metrorail and under review by the WMSC.</p> |
| <p>8.</p> | <p>Corrective Action Plans. Ms. Samarasinghe briefed the WMSC on outstanding CAPs.</p> <p>Ms. Samarasinghe noted that following the October 7 incident, the WMSC inventoried the CAPs related to the incident. Of all outstanding CAPs, the one with the most significant relationship to the October 7 collision was FTA-Red-16-003B. Several other CAPs appeared to be related to preventing collisions and thus related to the October 7 event. Those CAPs concerned recertification of train operators (CAP #FTA-R-2-22-B), fatigue management and hours of service (C0008), training of rail supervisors (CAP #FTA-R-2-21-B), ensuring staffing levels at the ROCC are adequate (C0006 & C0007), ensuring personnel in the ROCC are familiar with and well-informed about the territory and areas of the system over which they direct rail traffic (FTA-R-1-3-A), instituting uniform radio communications discipline (FTA-Red 16-004-A, TOC-Red-15-002-A), addressing reasons for train operators feeling pressure to rush through operations (FTA-Red-15-007-A), and poor documentation and availability of training including train operators demonstrating the train operator fluency in various operating modes (CAP FTA-R-7-39-A).</p> <p>Ms. Samarasinghe further noted that since the last public session, the WMSC had issued several findings to Metrorail requiring the development of several new CAPs.</p> |

On November 6, the first collection of these findings was issued. All of the findings were originally identified by the FTA's oversight team as requiring action, however, the WMSC had now issued findings scaled to be reflective of the current organization at Metrorail. The first such finding was that the Metrorail operations control center – the ROCC – must be appropriately staffed to meet the current operational needs at Metrorail. WMATA was directed to determine the staffing required and methods for reaching and sustaining these staffing levels. Metrorail had provided the corrective action plan and the documentation demonstrating the staffing needs as well as how Metrorail is reaching and maintaining those levels. The WMSC staff was reviewing all these materials to confirm responsiveness and sufficiency. The second finding was that Metrorail lacked an effective hours of service policy. Since 1990, when NTSB started issuing its Most Wanted List of Transportation Safety Improvements, human fatigue has been on this list. Railroads that are regulated by the Federal Railroad Administration have been subject to hours of service limits since 1907. Rail transit systems such as Metrorail are very similar to FRA controlled railroads. Accident experience and scientific evidence support hours of service limits as part of an overall fatigue management program to ensure the safety and health of the employees as well as the safety of the travelling public.

Another set of findings that were issued related to interior operator cab cameras that were designed to record activities of the train operator – but were being intentionally blocked using the visors on these cabs. The WMSC required actions to prevent this practice, including modifying the design and installation of these visors, training and monitoring to ensure compliance by train operations and finally ensuring that if needed this same specification is carried forward into the 8000-series rail car procurement that is underway at Metrorail.

The WMSC also issued a finding on November 6 to require Metrorail to have a robust capability to collect, analyze and thereby predict inspection, maintenance and modernization needs of infrastructure, using automatic sources of data generation, referred to as telemetry.

On November 25, the WMSC issued a set of findings concerning station overruns and two other issues that were raised by the October 7 collision: unauthorized movements with zero-speed commands and the use of electronic devices by operators. First, as to “overruns,” Ms. Samarasinghe then explained that an “overrun” occurs when an operator moves the train beyond the edge of the platform when the operator was supposed to service the platform. Sometimes the overrun is a few feet, sometimes a few car lengths, and sometimes an entire train length. The WMSC receives reports of overruns when a lead car goes past the end gate of the platform by at least one door leaf. In 2018, there were 34 reported overruns. In 2019, with about a month left in the year, there had been 55 overruns. An overrun could lead to a collision with a train ahead. An overrun could lead to an operator missing a briefing by an Advance Mobile Flagger – or AMF – and hitting workers on the tracks ahead. An overrun could cause an operator to move past a red signal and onto a route that is not “lined” properly, which could cause a derailment. Ms. Samarasinghe noted that as a result of the WMSC's focus on this issue, WMATA formed a Station Overruns Working Group, which had had some activity and that the WMSC would be meeting with some WMATA personnel and the working group to look at items such as whether Metro must establish an operating rule on overruns, whether

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| | <p>Metro needs to improve its tracking of overruns, and whether Metro should establish an overruns review board consisting of train operators who have been involved in station overruns that will create a non-punitive forum to better understand overruns. Second, as to the other issues raised by the October 7 incident, Ms. Samarasinghe noted that Metro had not yet fully implemented sufficient protections against the unauthorized movement of trains with zero-speed commands. Accordingly, the WMSC had issued findings requiring Metro (a) to monitor and measure compliance of its controllers and train operators with the stop and proceed rule; (b) to conduct regular, non-punitive incident review boards consisting of train operators and controllers involved in stop and proceed rule non-compliance in order to better understand and develop recommendations to prevent recurrence; (c) to review the findings of the review board and institute all recommendations; and (d) to map and identify all locations in the system where zero-speed commands are present and propose a work plan to correct. Finally, Ms. Samarasinghe discussed another set of findings, also issued November 25, that were raised by the October 7 collision. Ms. Samarasinghe noted that overruns could be caused by inattentiveness, which could be caused by fatigue and distraction, including through use of electronic devices. While Metrorail had been pro-active in some respects, Metrorail needed to do more. The WMSC’s findings would require Metrorail to propose a series of corrective actions such as requiring employees to hand over a device and records upon request, seeking records from wireless carriers, and improving employees’ awareness of its stated zero-tolerance policy (through efforts like safety stand downs), and actively detecting the unauthorized presence and use of electronic devices by employees.</p> |
| <p>9.</p> | <p>Audits. Ms. Samarasinghe discussed how the WMSC was continuing work on the draft track and structures audit.</p> <p>Mr. Chris DiFatta, Manager for Compliance and Oversight, then presented an overview of the audit then getting underway regarding Metrorail’s Roadway Worker Protection program – or RWP. Mr. DiFatta discussed the hazards facing roadway workers and how a decade earlier WMATA had instituted a program to address these hazards. The WMSC’s audit would evaluate, among many elements, the sufficiency of the program and how it is conveyed to departments within Metrorail. The audit could lead to findings.</p> |
| <p>10.</p> | <p>WMSC Finance and Operations Committee Report. WMSC Secretary/Treasurer and Commissioner Debra Farrar-Dyke provided an update on the activities of the WMSC Finance and Operations Committee. She noted the committee met on October 23 and considered two items. The first of the items was the WMSC’s Draft Workplan for FY2021, which begins on July 1 of 2020. The committee referred the item to the full commission, which subsequently authorized WMSC staff to transmit it to the jurisdictions. Commissioner Farrar-Dyke noted there would be more discussions and activities to come to finalize our FY2021 budget. The second item was a draft procurement manual prepared by WMSC staff. Commissioner Farrar-Dyke noted the procurement process the WMC must follow involves important federal requirements, and the procedures in the</p> |

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| | manual would ensure compliance. Commissioner Farrar-Dyke noted that the committee recommended some changes to the manual, and that staff made the requested changes. |
| 11. | Resolutions. A motion was made to approve a resolution approving the adoption of the draft procurement manual. The motion was seconded. <u>ACTION:</u> The resolution was unanimously approved. |
| 12. | Adjournment. Chair Hart adjourned the meeting. |