



The Honorable Robert L. Sumwalt
Chairman
National Transportation Safety Board
490 L'Enfant Plaza East, SW
Washington, DC 20594

Dear Chairman Sumwalt,

We appreciate the assistance, cooperation and guidance of the NTSB throughout the investigative process and for the opportunity to participate as a party to the investigation into the Cayce, South Carolina collision between Amtrak Train 91 and CSXT F777 03. In advance of the upcoming meeting on July 23, 2019, of the National Transportation Safety Board to review the report of findings and recommendations, I'd like to provide additional information supplementing our October 2018 submission relative to the actions Amtrak has taken since the incident. We respectfully request that the NTSB consider this submission prior to issuing its final report and that this submission become part of the official public record. We welcome any questions following your review of this submission.

In response to this accident, on February 13, 2018, the NTSB issued an urgent recommendation requesting that the Federal Railroad Administration (FRA) issue an emergency order providing instructions for railroads to follow when signal suspensions are in effect and a switch has been reported lined for main track movements. On April 23, 2018 the FRA issued a draft Safety Advisory¹. The FRA indicated the advisory "would identify existing industry best practices railroads utilize when implementing temporary signal suspensions and would recommend that railroads conducting rail operations under temporary signal suspensions develop and implement procedures and practices consistent with the identified best practices." The Safety Advisory also recommended that railroads take certain other actions to ensure the safety of railroad operations during temporary signal suspensions. Amtrak submitted comments to the docket in support of this advisory which included a summary of the even more proactive risk management actions taken by the corporation.

To increase consistency across our operations and to standardize our approach to risk reduction, Amtrak developed and implemented a signal suspension risk assessment approach. This process was implemented in late February of 2018. This process utilizes a formal risk assessment methodology to identify, analyze, assess, and mitigate risks due to human error associated with operating passenger service through areas normally protected by a signal system that has been temporarily disabled. The risk assessments are conducted upon receipt of notification of a signal system suspension from a host railroad. We perform the risk assessment via a collaborative review process with input from host railroads and multiple Amtrak departments including Operating Practices, System Safety, and local Train and Engine (T&E) staff. This review

¹ Docket FRA-2018-0037

includes determining the length of suspension, distance of suspension, train volumes, number of adjacent tracks, number of facing point switches, authorized speed, sight distance, number of road crossings, type of work being performed, equipment being utilized, clearing procedures and weather forecast. As a result of the assessment process, operational mitigations including, but not limited to, speed restrictions, alternate routing, operational modifications and service suspensions are required. Each assessment and the mitigations prescribed are reviewed and approved by members of senior leadership. The results of the risk assessment and the operational mitigations prescribed are communicated to affected employees and reviewed closely with host railroads. The execution of this process is subject to system-wide oversight and monitoring. To date each mitigation that has been applied has been more restrictive than the operating practice of the host railroad. This practice exceeds the FRA's suggested actions under the draft safety advisory. As of the date of this submission, this process has been executed successfully more than 80 times.

Amtrak has automated the assessment process to expedite appropriate review and approval of critical stakeholders as well as to ensure the results of the assessments are adequately archived. In 2019, in accordance with the requirements of our Safety Management System (SMS), Amtrak has performed an audit of the signal suspension risk assessment process. The audit confirmed that the assessments were being conducted in accordance with the process and identified areas to further improve process efficiency. The performance of the signal suspension risk assessment process continues to be closely monitored.

Amtrak also wishes to provide an update regarding the progress of installation of Positive Train Control (PTC) throughout operations. Currently, 99.9% of Amtrak owned infrastructure, totaling 899 of 900 miles, is fully equipped and operational. The remaining mile of track, located within the vicinity of the slow speed Chicago Terminal area, will be equipped in November of 2019. In areas in which Amtrak operates as a tenant, 85% of route miles planned for PTC coverage, totaling 16,931 out of 20,019 miles, are operational. Amtrak is working with host railroads to advance in installation of PTC throughout the system. Amtrak is also working with our Northeast Corridor tenants to ensure their successful interoperability and implementation of PTC by the required federal deadline.

In areas where the implementation of PTC is not required, formally known as Mainline Track Exclusion Addendum (MTEA) territory, or areas where PTC implementation will be delayed under an alternative schedule, Amtrak undertook a series of risk assessment activities. These efforts identified opportunities to enhance the safety of operations through the implementation of operational and technology-based risk mitigations. The Non-PTC risk assessment process was the logical outgrowth of the signal suspension risk assessment process and serves as a foundational effort to promote the implementation of the Amtrak SMS. The assessment process engages front-line employees working alongside subject matter experts with host railroad input to develop a suite of safety improvement options. Additionally, in accordance with our Safety Management System we are actively engaged with our appropriate labor groups to evaluate PTC enforcement events in an effort to continuously improve the safety of our operations.

Amtrak is aggressively advancing technology-based mitigations to improve situational awareness of train crews by enhancing locational data available to crew members. Amtrak has developed an application, AWARE, that will interface with the conductor's eMD device which is used to store ticket and schedule information. The AWARE application uses five sources of data, including GPS

to determine the location of the train and will provide alerts to crew members in advance of upcoming restrictions or areas designated as requiring other operational responses. This application is currently in development with intended deployment beginning in the fall of 2019. Over the upcoming months, the application will be deployed in a phased approach beginning in MTEA areas, then expanding throughout Amtrak operations.

As noted in prior submissions and correspondence to the NTSB, Amtrak has been working to expedite the implementation of a Safety Management System (SMS) by expanding processes for risk reduction and driving cultural change through data-driven decision making. As part of a three-year implementation program, we have prioritized fifteen critical programs for development and implementation in 2019. As of the date of this submission all fifteen programs are well underway with ten being completed. As we continue to progress through 2019, we are expanding our risk management program to include a formalized program of assessments focused on identification of opportunities to improve safety in additional areas of the operation. We are continuing to invest in systems to improve employee training and to enable the acquisition of safety data to enhance the analytical capabilities of the organization. We have launched an internal evaluation program to assess critical safety processes and continue the expansion of voluntary safety reporting programs. This program is executed by a third-party support contractor augmenting a dedicated workforce of several full-time employees. To date, 15 audits of critical safety processes have been conducted at locations across the Amtrak network. We are executing all of these activities against the backdrop of a paradigm shift toward implementing a Just Culture where we become a learning organization that proactively identifies and mitigates risk while exhibiting the behaviors that support our core values.

Similarly, Amtrak's SMS implementation will require the ongoing support provided by our labor leaders and the familiarity of our field personnel. While being mindful of the central importance of standardized procedures and rule adherence, we also know that our employees' working relationships with the hosts' field personnel, dispatchers, and maintenance forces enrich their situational awareness, providing vital insights. It is incumbent upon Amtrak to weave this collaboration into our safety program to make it as comprehensive and effective as possible. Finally, we have continued to partner with labor representatives to identify and address safety concerns and issues.

Amtrak pledges to continue working closely with internal resources and industry stakeholders to improve the safety of railroad operations. We wish to express our continued commitment to implementing a Safety Management System and look forward to the findings and recommendations of the National Transportation Safety Board.

Sincerely,



Justin A Meko

Vice President Safety, Training & Compliance