



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: May 23, 2016

In reply refer to: R-16-08 through -31

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On May 3, 2016, the National Transportation Safety Board (NTSB) adopted its report concerning the January 12, 2015, Washington Metropolitan Area Transit Authority (WMATA) L'Enfant Plaza station electrical arcing and smoke accident.¹ Additional information about this accident and the resulting recommendations may be found in the report of the investigation, which can be accessed at our website, <http://www.nts.gov>, under report number RAR-16/01.

As a result of this investigation, we issued 31 new recommendations, including 2 to the Federal Transit Administration, 1 to the mayor of the District of Columbia, 3 to the District of Columbia Office of Unified Communications, 1 to the District of Columbia Fire and Emergency Medical Services Department, and the following 24 recommendations to the Washington Metropolitan Area Transit Authority:

R-16-08

Review and revise your tunnel inspection, maintenance, and repair procedures to mitigate water intrusion into tunnels.

R-16-09

When the revision of tunnel inspection, maintenance, and repair procedures recommended in Safety Recommendation R-16-08 has been completed, train maintenance employees on the new procedures, and ensure that the procedures are implemented.

¹ See *Washington Metropolitan Area Transit Authority L'Enfant Plaza Station Electrical Arcing and Smoke Accident, January 12, 2015*, Railroad Accident Report RAR-16/01 (Washington, DC: National Transportation Safety Board, 2016).

R-16-10

Improve the capacity of tunnel ventilation fans to conform to the requirements of National Fire Protection Association (NFPA) 130.

R-16-11

Develop location-specific emergency ventilation configurations based on engineering studies of the Washington Metropolitan Area Transit Authority tunnel ventilation system.

R-16-12

Develop and implement procedures for actions to be taken by Rail Operations Control Center personnel when smoke detectors alarm.

R-16-13

Once action to address Safety Recommendation R-16-12 is completed, train all Rail Operations Control Center personnel on the new procedures for responding to smoke alarms. This training should include regular refresher training.

R-16-14

Incorporate smoke alarms in periodic emergency drills and exercises.

R-16-15

Include in your efficiency testing program (rules compliance testing program) a specific test to ensure appropriate emergency actions are taken by Rail Operations Control Center supervisors and control operators in response to an alarm.

R-16-16

Install and maintain a system that will detect the presence and location of fire and smoke throughout the Washington Metropolitan Area Transit Authority tunnel and station network.

R-16-17

Develop procedures for regular testing of all smoke detectors.

R-16-18

Conduct a risk assessment before any preventive maintenance program is initiated, changed, or discontinued.

R-16-19

Ensure that all train operators are trained and regularly tested on the appropriate procedure for emergency shutdown of railcar ventilation.

R-16-20

Incorporate a specific test in your efficiency testing program to ensure that train operators understand the procedure for emergency shutdown of railcar ventilation.

R-16-21

Revise Standard Operating Procedure #6 to clarify which trains should be stopped until the source of smoke is identified.

R-16-22

Revise your standard operating procedures to require that (1) suitably trained, qualified, and properly equipped personnel investigate reports of wayside fire or smoke, and (2) these reports are not investigated using trains with revenue passengers.

R-16-23

Review and revise as necessary your Rail Operations Control Center emergency response procedures for smoke and fire.

R-16-24

Retrain Rail Operations Control Center supervisors on all standard operating procedures for emergencies.

R-16-25

Develop and incorporate a comprehensive program for training Rail Operations Control Center control operators in emergency response procedures including regular refresher training.

R-16-26

Conduct regular emergency response drills and develop a program to test the efficiency of the Rail Operations Control Center to ensure that standard operating procedures are properly followed during emergencies.

R-16-27

Install line identification and direction signage at tunnel entrances and inside tunnels.

R-16-28

Implement a regular schedule for the inspection and removal of obstructions from safety walkways and track-bed floors to ensure safe passageways for passengers to use during a tunnel evacuation.

R-16-29

Conduct emergency response drills with local emergency response agencies in accordance with National Fire Protection Association (NFPA) 130, document lessons learned, and develop and implement additional procedures as necessary to effectively respond to emergencies.

R-16-30

Revise your standard operating procedures to require that an after-action review be conducted of all emergency responses to events with passenger or employee fatalities, and publish the results, including both the successes and the potential deficiencies of your responses, to help ensure that deficiencies are appropriately remediated.

R-16-31

Review and revise your quality assurance program to ensure that regular quality assurance audits are included to identify and correct any elements of procedural noncompliance.

Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred in these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendations by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman