



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161101-WMATA-AD-1		
	2016	11	01				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Landover MD						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-TNG-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Observation Audit of Radio Communication Training Course				Activity Code		OPS	TNG	OBS
Job Briefing Employee Name/Title	N/A				Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	0700 – 1030	Outside Shift	No		
Related Reports	No				Related CAPS / Findings		N/A							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Rules 1.69–1.88		X		X		X					
	Permanent Order		NO. T-16-10											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A			
					X						X			
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)			From			To				
							N/A			N/A				
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	<u>General Observations:</u> <ul style="list-style-type: none"> The FWSO Team observed WMATA Operations "Radio Communication Training" (Reference Course: RWPRCOM; Rev. 2 – July 2016). 										Number of Defects		0	
											Recommended Finding?		No	
											Remedial Action Required?		No	
											Recommended Reinspection?		No	

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	 Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.18 07:50:09 -05'00'		Date
Inspector in Charge – Name	Ambur Daley		
Inspection Team	Tamara Powell, Chris DiFatta		



	<ul style="list-style-type: none">• The purpose of this course is to ensure that all WMATA employees, contractors, and persons required to carry a radio understand radio protocol and demonstrate competence in radio procedures.• The rules that govern this course are MSRP General Rules 1.69 – 1.88, which establishes the proper way to communicate all radio transmissions. Specifically, General Rule 1.79 describes radio protocol for all users. This rule was recently modified per Permanent Order T-16-10 Radio Protocols (issued July 19, 2016), which established and formalized new radio procedures and verbiage that must be used.• This course was revised to incorporate Permanent Order T-16-10 Radio Protocols requirements plus lessons learned from emergencies at WMATA that resulted from radio communication errors between personnel in field and the Rail Operations Control Center (ROCC).• Participants were provided a copy of the most recent Safety Alert, issued October 21, 2016, following a near miss incident.• The course was delivered as a Powerpoint presentation and included scenario-based role play, video instruction, and modeling exercises.• Participants were taught how to use the WMATA radio system and how to deliver and receive instruction using the standardized verbiage established in Permanent Order T-16-10. The class also reinforced that all radio users must begin their transmission with the required identification, use word-for-word acknowledgements, and adhere to the International Civil Aviation Organization (ICAO) standards for communicating. Participants were taught the four parts to a communication loop:<ol style="list-style-type: none">1. <u>Introduction</u> (e.g., positive ID, unit train number, equipment ID, track number, and location)2. <u>Reason for Message</u> (e.g., trouble, condition, relaying information, requesting permission to perform an action)3. <u>Response from Receiver</u> (e.g., grant permission, give instruction, provide assistance or guidance)4. <u>Closing the Communication</u> (e.g., “over” must be used to signify turning control of the air time over to the other person for reply, and ROCC shall signify the closing out of the communication loop by using “out”)• Participants were asked to demonstrate understanding of radio communication protocols through role play exercises, which involved scripted scenarios where the participants were required to identify the missing part of the communication loop. <p>Note: During the class, participants posed questions related to communication protocols, and there were several that the instructor was unable to answer. The instructor has worked at WMATA for 1.5 years. The questions that went unaddressed are documented below:</p> <ol style="list-style-type: none">1. Are operators required to give a radio check to the ROCC Rail Traffic Controller when he/she swings on to a new train or starts his/her shift?2. Should an operator give a radio check to the ROCC RTC when changing Ops territory (i.e., changing from Ops 1 to 2 when changing destination or to another rail line)?3. Is it a requirement for operators to give hourly radio checks?4. Is a confirmed report of high water still classified as a “life emergency” situation? The DTS department has reportedly responded to incidents of confirmed flooding alarms in the field, and are frequently told to stand by when trying to relay this report to the ROCC RTC.5. When the scheduled RWP protects are broadcast to the field, are operators required to give a word-for-word read back to the ROCC RTC? (This question was asked in response to recent near miss incidents that involve roadway workers. Specifically, when personnel request Foul Time or Exclusive Track Occupancy protection, how are they assured that trains are aware of their location?)		
Remedial Action	N/A		



Washington Metropolitan Area Transit Authority

METRORAIL SAFETY RULES AND PROCEDURES HANDBOOK

PERMANENT ORDER

NO. T-16-10 Radio Protocols,
Modification to General Rule 1.79

Date: Tuesday, July 19, 2016

TO: All Personnel

Permanent Order T-16-10 establishes new radio protocols to provide formal authorized standard verbiage to be used in communicating certain terms and acknowledgements. The new protocols also reinforce the need to restate, word for word, at all times, the communications received. This order modifies **General Rule 1.79**.

Modifications made to **General Rule 1.79** are shown below with additions underlined and highlighted.

Modifications made to General Rule 1.79:

- 1.79 Employees shall not take any action until they are positive that all radio transmissions or receptions are heard, fully understood and acknowledged. Individual radio transmissions shall, at all times, be repeated by the receiver so the transmitter can confirm the message was received completely and by the intended receiver. Whenever the transmitter has completed their transmission and is turning the airtime over to the receiving party for acknowledgement or reply, they are to end their communication with the word "over". Speed restrictions must always be acknowledged by each Train Operator, even when a blanket message is sent out from Central Control, through 100 percent word for word repeat back from the Operators to Central Control or the Tower.

Positive Identification must be established prior to transmitting a message. Positive identification includes the transmitter stating their Train/Equipment Number or Unit ID Number, location and track number at the beginning of a transmission and the receiver repeating back the Train/Equipment Number

or Unit ID Number, location and track number when acknowledging the radio call.

When communicating with Class I and Class II vehicles, employees are to identify the train ID or unit ID by the complete number series. This method of positive train/unit identification shall be consistently used when transmitting and acknowledging information. Examples: Train ID 404 shall be identified as "four zero four". Train ID 414 shall be identified as "four fourteen", instead of "four one four". Train 932 shall be identified as "nine thirty two". PM-32 shall be identified as "PM thirty two" instead of "PM three two".

When communicating location information related to Power Rooms only (TPSS or TBS), that is Alpha-Numeric (e.g. C-07, E-07, B-14), employees must use the International Civil Aviation Organization (ICAO) standard for communicating the "Alpha" character. For example: C-07 shall be identified as "C-Charlie- Zero Seven". E-07 shall be identified as "E-Echo-Zero Seven".

International Civil Aviation Organization (ICAO) Standard

Letter	Word	Pronunciation
A	ALFA	AL FAH
B	BRAVO	BRAH VOH
C	CHARLIE	CHAR LEE (or) SHAR LEE
D	DELTA	DELL TAH
E	ECHO	ECK OH
F	FOXTROT	FOKS TROT
G	GOLF	GOLF
H	HOTEL	HOH TELL
I	INDIA	IN DEE AH
J	JULIETT	JEW LEE ETT
K	KILO	KEY LOW
L	LIMA	LEE MAH
M	MIKE	MIKE
N	NOVEMBER	NO VEM BER
O	OSCAR	OSS CAH
P	PAPA	PAH PAH

Q	QUEBEC	KEH BECK
R	ROMEO	ROW ME OH
S	SIERRA	SEE AIR RAH
T	TANGO	TANG GO
U	UNIFORM	YOU NEE FORM (or) OO NEE FORM
V	VICTOR	VIK TAH
W	WHISKEY	WISS KEY
X	XRAY	ECKS RAY
Y	YANKEE	YANG KEY
Z	ZULU	ZOO LOO

Below is a list of authorized terms and responses to be used, in all cases, as applicable, in communicating with the Rail Operations Control Center (ROCC):

<u>TERM</u>	<u>DESCRIPTION</u>
<u>Central</u>	<u>Rail Operations Control Center (ROCC)</u>
<u>Copy</u>	<u>The transmission was heard and understood</u>
<u>Disregard</u>	<u>Canceling previous instructions</u>
<u>Hold</u>	<u>Hold your position – DO NOT MOVE until so instructed</u>
<u>Affirmative</u>	<u>Yes</u>
<u>Landline</u>	<u>Call by telephone, specified number or person</u>
<u>Out</u>	<u>Used by Central Control (ROCC). End of transmission, no reply is needed</u>
<u>Over</u>	<u>I am finished with my transmission and I am turning control of the air time over to you and I am awaiting your response</u>
<u>Proceed</u>	<u>Permission to move train</u>
<u>Negative</u>	<u>No</u>
<u>Repeat</u>	<u>Repeat all of your last transmission</u>
<u>Single Tracking</u>	<u>Controlled changes in the direction of traffic, on a single main line track segment, between selected interlockings.</u>
<u>Urgent (to be used in emergencies)</u>	<u>Repeated three times consecutively (Urgent, Urgent, Urgent) to notify parties of a hazardous condition which could result in death or injury, damage to property, or cause a serious disruption in operations.</u>

<u>Standby</u>	<u>STOP TRANSMITTING (Calling station should honor “standby” without question unless the calling station has an URGENT call to report) Wait for further instruction</u>
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As a means of ensuring that messages are not interrupted on the different talk group radio channels (OPS2, OPS3 etc.), when an employee is communicating with Central Control, Central will close out a communication loop by saying “Central, out”. Central saying “out” signifies that no response is necessary or expected from the other party and is the end of a that communication. This then opens up the airway for another party in the same talk group to then begin their transmission.

Approval of Permanent Order T-16-10



Recommended:


Director
Rail Operations Control Center



Approve:


Managing Director
Department of Rail Transportation


Approve:


Chief Safety Officer
System Safety and Environmental
Management


Approve:


Assistant General Manager
Transit Infrastructure and Engineering
Services



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161104-WMATA-CD-1		
	2016	11	04				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	OPMS	Sub- Department	RWP
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility						


Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RWP-TNG-OBS					
Inspection Units	1					
Inspection Subunits	5					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Observation of RWP Level 4 Training			Activity Code		RWP	TNG	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	No	Out Brief Conducted	No	Time	700-1500	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
	MSRPH													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
					X							X		
Line(s)	N/A		Track Number	N/A		Chain Marker and/or Station(s)	From		To					
							N/A		N/A					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	FWSO observed WMATA's Roadway Worker Protection (RWP) Level 4 class from October 31 through November 4, 2016. This is the highest level of RWP training available to WMATA personnel, and it is required before an employee can serve as								Number of Defects		0			
									Recommended Finding?		No			
									Remedial Action Required?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	 AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.21 21:39:13 -05'00'	Date
Inspector in Charge - Name Ambur Daley	Inspection Team Curtis Dougherty, Al Nepa, Kevin McDonald, Tino Sahoo, Mike Vitale			



	<p>a Roadway Worker in Charge (RWIC).</p> <p>The RWP Level 4 course is five days long and builds upon the materials learned in the RWP Level 1 and 2 courses (there is no Level 3 course), as well as the experience of the students, who are required to have at least one year of experience on the WMATA roadway prior to taking this class.</p> <p>The RWP Level 4 course focuses on three main areas of responsibility for the RWIC: the job safety briefing, communication with the ROCC, and setup and oversight of the work zone. More specifically, an RWIC is responsible for communicating with the ROCC, reviewing the roadway access guide to establish a safe work area, providing a comprehensive job safety briefing prior to setting up the work area, ensuring that a work zone is safely established in compliance with the RWP manual and takes into account additional needs based on the access guide, coordinating activities throughout the work zone, and ensuring that the work area has been cleared and returning the track to revenue service.</p> <p>This class first covers the required RWIC responsibilities in the classroom and then uses role playing so that participants can practice giving job briefings and other communications to workers and the ROCC. Finally, the field portion of the training allows trainees to set up simulated work zones, working limits, and protections.</p> <p>At the conclusion of the class, students are required to demonstrate their mastery of the content by completing a RWP cardinal rules exam (100% correct requirement), a RWP general knowledge exam (92% correct requirement), and a practical exercise where the student must demonstrate a mastery of the job safety briefing, communication with the ROCC, and successful work zone setup and break down in a simulated roadway environment.</p> <p>FWSO observed 4 students complete this course. The instructors were extremely knowledgeable about the subject matter and encouraged class participation to ensure all participants understood the material. Additionally, the instructors encouraged more experienced students to share their experiences on the roadway and made notes regarding potential improvements to the RWP program. The instructors clearly demonstrated the use of all safety equipment, proper work zone setup across all types of protections used at WMATA, effective communication with the ROCC, and how to conduct a proper job safety briefing.</p> <p>In addition to the RWP manual, the instructors provided the class with supplemental materials to help conduct a job safety briefing and communicate with the ROCC. These materials helped ensure that the students covered all required elements in a uniform fashion across every type of work zone setup allowed at WMATA.</p>	Recommended Reinspection?	No
Remedial Action	N/A		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161105-WMATA-AD-1		
	2016	11	05				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	TNG
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive Landover, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-TNG-OBS					
Inspection Units	1					
Inspection Subunits	10					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Bridge Controller Training			Activity Code		ROCC	TNG	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	0800-1600	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
					X							X		
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)			From		To					
							N/A		N/A					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	FWSO Inspectors observed WMATA's Bridge Controller Training Program at the Carmen Turner Facility. The course was taught by a group of very experienced instructors who have worked in the ROCC and Rail Operations Departments. The 10-day refresher consisted of classroom lectures and practical simulations.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

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Inspector in Charge - Signature		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.14 14:08:40 -05'00'		Date
Inspector in Charge - Name	Ambur Daley	Inspection Team		
		Chris DiFatta, Tamara Powell, Curtis Dougherty		



	<p>The program was divided into six modules:</p> <ul style="list-style-type: none">• Incidents and Emergency Course, which covered:<ul style="list-style-type: none">○ SOP # 1A – Command, control, and coordination of emergencies on the rail system○ SOP # 6 – Fire and smoke on the roadway○ SOP # 24 – Sick customer on a train○ SOP # 4A – Customer self-evacuation from trains○ SOP # 4 – Customer evacuation from train○ SOP # 9 – Train derailment○ SOP # 15 – Absolute block/permissive block○ SOP # 14 – Bomb threat/suspicious or unattended package○ SOP # 37 – Hazardous material incident○ SOP # 42 – Hazardous chemical detection alarm procedures○ SOP # 38 – Unknown substance response procedure○ SOP # 8 - Fire and smoke in a station○ SOP # 13 – Undesired uncoupling or pull apart of cars○ SOP # 27 – Flammable vapor alarm○ SOP # 11 – Train collision○ SOP # 34 – Defective trains• Radio Communication Course, which covered:<ul style="list-style-type: none">○ Positive train/unit identifications○ International Civil Aviation Organization (ICAO) phonetic alphabet○ Repeat back transmission by the receiver so transmitter can confirm the message was received completely○ Radio checks○ Radio message formatting• Controller Entry Skills and Tasks Course, which covered:<ul style="list-style-type: none">○ Train movement control○ Maintaining headway strategies○ Red signal overrun reviews○ Switch correspondence reviews• Traffic Management Strategies Course, which covered:<ul style="list-style-type: none">○ Headway adherence○ Single tracking○ Review of fan and tunnel exhaust procedures• MSRPH, which covered:<ul style="list-style-type: none">○ Review of cardinal and general rules○ Updates of temporary and permanent orders○ Daily track characteristics/layout exercises from the Rules and Simulations course of the Initial Controller Program• Troubleshooting, which covered:<ul style="list-style-type: none">○ BRAKES ON fails to illuminate○ BRAKES OFF fails to illuminate○ Brakes in Emergency (BIE) – (train fails to charge)○ Air isolation procedure○ Total isolation procedure○ ALL DOORS CLOSED fails to illuminate○ Loss of speed commands○ Train does not operate in automatic○ Overspeed alarm procedure <p>Included in the Program were 10 simulations and 1 Final Exam that were part of the Incidents and Emergency Course. The students must obtain an 85% on the exam to pass the course.</p> <p>The Instructors had command of the classroom, materials, and the ability to convey their knowledge and experience to the students. They also did a great job encouraging students to actively participate in the program. There was excellent feedback from the students, and it appeared they were eager to comprehend the materials.</p>		
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161106-WMATA-AD-1		
	2016	11	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Southern Avenue Station, Green Line						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-SAFE-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	No					
Remedial Action Required ¹	Yes					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Rail Operations Control Center - SAFE			Activity Code		ROCC	SAFE	OBS
Job Briefing Employee Name/Title	SAFE unit 20					Accompanied Inspector?	No	Out Brief Conducted	No	Time	0930 1230	Outside Shift	Yes	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X		X					X	X					
Line(s)	Green Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							Southern Avenue Station		Southern Avenue Station					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	FWSO inspectors observed WMATA and Prince George's County first responders execute WMATA's quarterly full scale exercise series (mock disaster), which							Number of Defects		1				
								Recommended Finding?		No				
								Remedial Action Required?		Yes				

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Inspector in Charge - Signature	AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.29 10:59:27 -05'00'	Date
Inspector in Charge - Name	Ambur Daley			
Inspection Team	Corwyn Foster, Al Nepa			

Form FTA-IR-1

Version date: 8/26/16



	<p>simulated a train emergency involving a train fire and smoke in a tunnel and included the evacuation of passengers and casualties.</p> <p>General observations:</p> <ul style="list-style-type: none">• Prince George's County first responders did not have possession of a key to override the elevator for manual operation.• Prince George's first responders struggled with the application of the Warning Strobe Alarm Device (WSAD) wayside paddles, specifically with the ground connection.	Recommended Reinspection?	No
Remedial Action	WMATA should provide Prince George's County first responders a key for all system elevators and provide training for the proper use of the WSAD wayside paddles.		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161107-WMATA-CDF-1		
	2016	11	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Fort Totten, Red Line, B-06						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	OPS-RI-OBS				
Inspection Units	1	1				
Inspection Subunits	1	3				
Defects (Number)	0	1				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST UNIT 6107– SAFE 20					Accompanied Inspector?	No	Out Brief Conducted	No	Time	0800 1000	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	Temporary Order T-16-12													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X		X					X						
Line(s)	Red Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							B-06		B-06					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	FWSO inspected the work area relative to WMATA Temporary Order T-16-12, Access to Safe Track Location, which provides access to the work zone from the Fort Totten platform without having to access the right of way.								Number of Defects		0			
									Recommended Finding?		No			
									Remedial Action Required?		No			

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Inspector in Charge - Signature	CORWYN DALE FOSTER	Digitally signed by CORWYN DALE FOSTER DN: c=US, o=U.S. Government, ou=DOT FRAAtlantaGA, ou=FRA FRAAtlantaGA, cn=CORWYN DALE FOSTER Date: 2016.11.15 17:24:47 -05'00'	Date October 03, 2016
Inspector in Charge – Name Corwyn Foster	Inspection Team Corwyn Foster & Al Nepa		

Form FTA-IR-1

Version date: 8/26/16



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<p>Prior to entering the Surge 10 work location, a briefing was provided by TRST Unit #6107 at the Safe Track Surge entrance at Fort Totten. The briefing was comprehensive and thorough. It included a WMATA level 1 ID check; safety rule review (3.67); red tag outage numbers; Mobile Command Center (MCC) telephone number; type of protection (inaccessible track); and locations of barriers, mats, hospital locations, and potential hazards.</p> <p>At the Fort Totten platform location (CM 275+76, B-06), SOP 28 was superseded by Temporary Order Number T-16-12, which provided fence protection from the roadway on both sides to the surge working limits. Signage to contact MCC prior to entering and fencing location was compliant.</p> <p>No exceptions were taken with the briefing.</p>	Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Operations Riding Inspection					Activity Code	OPS	RI	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	0130 1530	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	SOP										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X		X							X	
Line(s)	Green Line Blue Line Yellow Line	Track Number	1	Chain Marker and/or Station(s)		From		To			
						B-06		B-35			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	5164, 3129, 6033		N/A								
Description	<p>A random observation of train operator SOP compliance was performed on red line train number 101, blue line train number 402, and yellow line train number 302. Except for one violation observed on yellow line train number 302, all operators were in full compliance.</p> <p>SOP defect: Yellow line train number 302, operator failed to signal (sound horn) at the portal entrance between Eisenhower Avenue and King Street.</p> <p>General Observation: Poor lighting conditions were observed between Capitol Heights and L'Enfant Plaza. Bulbs were missing, burnt-out, or covered with soot.</p>						Number of Defects		1		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
Remedial Action	To ensure compliance with TRST 1000 standards, WMATA must make appropriate repairs to the poor lighting conditions identified between Capitol Heights and L'Enfant Plaza.										



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161108-WMATA-AD-1		
	2016	11	08				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 10 Work Area - NOMA to Fort Totten						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-GEN-PI	TRK-RWP-PI	SAF-RAG-PI		
Inspection Units	1	1	1	1		
Inspection Subunits	1	1	1	1		
Defects (Number)	0	0	2	1		
Recommended Finding	No	No	Yes	Yes		
Remedial Action Required ¹	No	No	Yes	Yes		
Recommended Reinspection	No	No	Yes	Yes		

Activity Summaries

Inspection Activity #	1	Inspection Subject					Job Safety Briefing			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	SAFE 206					Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1500	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	RWPM													
	MSRPH													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X						
Line(s)	B	Track Number	1 and 2		Chain Marker and/or Station(s)		From		To					
							114+00		270+00					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	FWSO received a comprehensive job safety briefing from both the briefer designated by the RWIC (Mobile Command) and the specific gang leader, SAFE 206. Each briefer reviewed all necessary information, including protection in place, nearest hospital, essential emergency contact information, and the working limits. FWSO was part of a mobile work gang that would be traveling through multiple							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.17 09:46:07 -05'00'	Date
Inspector in Charge - Name Ambur Daley	Inspection Team Chad Broski, Kevin McDonald, Mike Vitale	



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	work areas during the inspection. Both briefers stressed that we would be contacting the gang leader for each area in order to pass through that area safely.		
	General Observations: Briefing did not include the locations and types of work being performed, only a mention that work is ongoing and we should be vigilant. All communication of work locations was made during radio transmissions with the RWIC when requesting permission to enter the roadway.		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Work Zone Inspection					Activity Code	TRK	GEN	PI
Job Briefing Employee Name/Title	SAFE 206			Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1500	Outside Shift	No
Related Reports	N/A			Related CAPS / Findings	N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard			Other / Title		Checklist Reference	
	RWPM										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	B	Track Number	1 and 2	Chain Marker and/or Station(s)	From			To			
					114+00			270+00			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	FWSO performed an inspection of the entire SafeTrack work area. General Observations: <ul style="list-style-type: none"> B2 138+00. Staff observed inadequate ballast support at this chain marker and for approximately 100 feet on either side of this chain marker. WMATA must ensure this condition is addressed prior to the conclusion of the surge. WMATA is using a new style of nut to secure fasteners to direct fixation studs. Several ties measuring 7 and ¾ inches wide were noted. It was unclear if this area had completed tie replacement, FWSO will follow up. 							Number of Defects		0	
								Recommended Finding?		No	
								Remedial Action Required?		No	
								Recommended Reinspection?		Yes	
Remedial Action	N/A										

Inspection Activity #	3	Inspection Subject	Work Zone Inspection					Activity Code	TRK	RWP	PI
Job Briefing Employee Name/Title	SAFE 206			Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1500	Outside Shift	No
Related Reports	N/A			Related CAPS / Findings	N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard			Other / Title		Checklist Reference	
	RWPM										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	B	Track Number	1 and 2	Chain Marker and/or Station(s)	From			To			
					114+00			270+00			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	FWSO performed an inspection of the RWP set up for entire SafeTrack work area.							Number of Defects		2	



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	<p>The following items were noted.</p> <p>Defects:</p> <ul style="list-style-type: none"> FWSO noted only one Warning Strobe and Alarm Device (WSAD) in place in the entire work area. WMATA must ensure that WSADs are placed in accordance with the RWP manual which states, "The WSAD shall be used anytime any roadway worker or equipment has the potential of making contact with the third rail or any associated parts or equipment attached to the third rail." This is especially important at the interlocking near Brentwood Yard, where there are energized third rails near the work area. FWSO noted that one of the red lanterns signifying the end of the work area at B2 114+00 was not functioning. Mobile Command sent an employee with new replacement lantern. 	Recommended Finding?	Yes
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes
Remedial Action	WMATA must ensure that WSADs are properly installed within working limits.		

Inspection Activity #	4	Inspection Subject	Work Zone Inspection					Activity Code	SAF	RAG	PI
Job Briefing Employee Name/Title	SAFE 206		Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1500	Outside Shift	No	
Related Reports	N/A		Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	RWPM										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	B	Track Number	1 and 2	Chain Marker and/or Station(s)	From			To			
					114+00			270+00			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	<p>During the inspection, FWSO verified the accuracy of WMATA's Roadway Access Guide, which identifies hotspots along the roadway for roadway workers. In the 2016 Access Guide, WMATA lists the section of track on the B line between 99+00 and 133+00 as between B03 (Union Station) and B35 (NOMA). However, the station limits for B35 are 101+00-107+00. The Roadway Access Guide does not accurately reflect the configuration for this area.</p>						Number of Defects		1		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
Remedial Action	WMATA must review and revise the Roadway Access Guide to more accurately reflect the configuration for this area and provide clarity to roadway workers.										

Photos:



7 3/4" wide tie



New nut style with more beveled edge



Low Crib Ballast at B2 138+00



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161109-WMATA-AD-1		
	2016	11	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST OPS SMNT	Sub- Department	Production RAIL ATC
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
Inspection Location	K-Line – Track #1 – Dunn Loring to Vienna						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	OPS-RC-OBS	TRK-GEN-OBS			
Inspection Units	1	1	1			
Inspection Subunits	2	7	1			
Defects (Number)	0	1	3			
Recommended Finding	No	No	No			
Remedial Action Required ¹	No	Yes	Yes			
Recommended Reinspection	No	Yes	No			

Activity Summaries

Inspection Activity #	1	Inspection Subject				RWP Job Safety Briefing and On-Track Protection			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	SAFE Unit #207 - RWIC TRST Unit 6101 - Escort				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 – 1330	Outside Shift	No	
Related Reports					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	RWPM												
	MSRPH												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X							X					
Line(s)	K-Line	Track Number	1	Chain Marker and/or Station(s)		From		To					
						K1 CM653+00		K1 CM777+00					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A							
	N/A		N/A										

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.14 10:50:58 -05'00'		Date
Inspector in Charge – Name Ambur Daley		Inspection Team Robert Maniuszko		



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Description	<p>Job Safety Briefing:</p> <ul style="list-style-type: none"> SAFE Unit #207 was the RWIC. All PPE and IDs were checked. The Job Safety Briefing was led by SAFE Unit #207. TRST Unit #6101 provided watchman/lookout duties for the team. The area inspected included two caution areas. For the noise area, the watchman used an air horn and walked approximately 500 feet in front to provide adequate warning. For the crossover, the ROCC required the team to request foul time to traverse the interlocking. Each method provided ample time for the team. Train Approach Warning (TAW) was the primary method of protection. ROCC was on OPS #2. Closest hospital was Inova Fairfax. If there was an emergency we would use an ETS box and dial "0". Clearance would be toward the field side fence. <p>No exceptions were taken to the Job Safety Briefing.</p> <p>On-Track Protection:</p> <ul style="list-style-type: none"> The methods described above provided the team with adequate warning and ample time to clear to a position of safety. The watchman was equipped with a whistle and an air-horn. <p>No exceptions were taken to the protection provided while on the roadway.</p>	Number of Defects	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Rule Compliance Observations				Activity Code		OPS	RC	OBS
Job Briefing Employee Name/Title	SAFE Unit #207 - RWIC TRST Unit 6101 - Escort		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 - 1330	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	Permanent Order	T-16-07									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	K-Line	Track Number	1	Chain Marker and/or Station(s)		From		To			
						K1 CM653+00		K1 CM777+00			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	The following trains were observed to be in compliance with Permanent Order T-16-07:						Number of Defects		1		
							Recommended Finding?		No		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
The following train was not in compliance with Permanent Order T-16-07:											
Remedial Action	WMATA should ensure that the Train Operator of Train #904 is properly counseled on Permanent Order T-16-07.										



Inspection Activity #	3	Inspection Subject	Track – Post Surge #9 Inspection					Activity Code	TRK	GEN	OBS
Job Briefing Employee Name/Title	SAFE Unit #207 - RWIC TRST Unit 6101 - Escort		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 - 1330	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	K-Line	Track Number	1	Chain Marker and/or Station(s)		From		To			
						K1 CM653+00		K1 CM777+00			
Vehicles	Head Car Number		Number of Cars		Equipment		N/A				
	N/A		N/A								
Description	<p>Areas of Concern:</p> <ol style="list-style-type: none"> At K1 CM673+80, the cross bond between track 1 & 2 is not connected on the track 1 side. At K1 CM744+00, the joint bar on the right running rail has a loose bolt. The nut has almost backed off. SAFE Unit #207 called MOC and requested a manual 35 mph speed restriction from K1 CM738+00 to K1 CM750+00. TRST Supervisor notified the ERT Team. ROCC was also contacted by SAFE Unit #207. They imposed the speed restriction and made the required radio announcements. At approximately K1 CM754+00, the cable trough mounted on the wall has a dislodged cover that needs to be re-secured. <p>General Observations:</p> <ul style="list-style-type: none"> Crossties have been replaced. Ballast has been replaced, regulated, and tamped. Numerous rail joints have been eliminated. Third Rail Cover Boards have been replaced. Third Rail expansion joint cables have been replaced and are now supported on fiberglass Kindorf on the field side of the third rail. ETS Boxes have been repaired. All doors were latched and each box was labeled. Blue Lights were all working. <p>No exceptions were taken with the work that has been completed.</p>						Number of Defects		3		
							Recommended Finding?		No		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		No		
Remedial Action	WMATA must fix the three areas of concern noted above.										

Photos:



Figure 1 - K1 CM673+80 - Cross Bond not connected



Figure 2 - K1 CM744+00 - Right Rail Joint Bar Bolt Loose



Figure 3 - K1 CM754+00 Cable Trough Cover Dislodged



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration**Agency/Department Information**

Inspection Date	YYYY	MM	DD	Report Number	20161109-WMATA-AD-2		
	2016	11	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Traction Power	Sub- Department	Cable Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	E-Line Fort Totten to Columbia Heights, Track 1						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-JSB-OBS	TP-CI-OBS	SAF-RAG-PI	SAF-RC-OBS		
Inspection Units	1	1	1	1		
Inspection Subunits	1	1	1	1		
Defects (Number)	1	2	1	2		
Recommended Finding	Yes	Yes	Yes	Yes		
Remedial Action Required ¹	Yes	Yes	Yes	Yes		
Recommended Reinspection	Yes	Yes	Yes	Yes		

Activity Summaries

Inspection Activity #	1	Inspection Subject					Job Safety Briefing			Activity Code		TP	JSB	OBS
Job Briefing Employee Name/Title	TRPM 1271					Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1430	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH													
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X								X					
Line(s)	E	Track Number	1	Chain Marker and/or Station(s)			From		To					
							E06		E04					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	TRPM Unit 1271 provided a job safety briefing at the Fort Totten Station to the cable inspection team and FWSO. Protections in place, hotspots, and Roadway Access Guide were in place. The RWIC did not know the maximum authorized speed (MAS) through the area, so established protections assuming 59 miles per hour; however, the MAS in the work area was 65 mph as documented in WMATA's							Number of Defects		1				
								Recommended Finding?		Yes				
								Remedial Action Required?		Yes				
								Recommended Reinspection?		Yes				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY	Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.12.09 15:29:48 -05'00'	Date
Inspector in Charge - Name	Ambur Daley	Inspection Team Chad Broski, Curtis Dougherty, Mike Vitale	



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Federal Transit Administration

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	<p>MSRPH (Rule 3.84), "The normal operating speed for Class 1 vehicles on the mainline is that specified by the regulated speed indication and shall not exceed 59 mph except on the Green Line between Georgia Avenue - Petworth and Greenbelt, and between Anacostia and Branch Avenue where the normal operating speed is 65 mph as set by Performance Level 1."</p> <p>The RWIC instructed the watchman to remain in a place of safety and be able to see and signal a train from at least 1320 feet away from the mobile work gang. This distance does not establish adequate protection based on the "ample time" definition at either 59MPH or 65MPH as workers are required to be in a position of safety not less than 15 seconds before a train or rail equipment moving at the maximum authorized speed on that track, can pass the location of the Roadway Worker. The RWIC must account for the time it takes Roadway Workers to clear plus the distance the train travels in 15 seconds at its maximum authorized speed.</p> <p>The RWIC informed the crew that he would ask for an intermediate watchman if the situation required. The watchman tested his air horn and whistle to confirm they were functioning properly. Finally, the RWIC confirmed all RWP cards were up to date and all members of the work gang had the required personal protective equipment (PPE).</p>		
Remedial Action	WMATA must ensure that the correct maximum authorized speed throughout the work area is identified in the job safety briefings so that appropriate protections can be put in place. Also, WMATA must ensure proper application of "ample time" protection.		

Inspection Activity #	2	Inspection Subject	Cable Inspection Observation				Activity Code	TP	CI	OBS				
Job Briefing Employee Name/Title	TRPM 1271		Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1430	Outside Shift	No				
Related Reports	N/A		Related CAPS / Findings		N/A									
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference						
	MSRPH													
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X								X					
Line(s)	E	Track Number	1	Chain Marker and/or Station(s)		From		To						
						E06		E04						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	<p>FWSO observed a TRPM cable inspection crew inspecting expansion cables and cable boots from E06 (Fort Totten) to E04 (Columbia Heights). Inspectors used checklists for each location and photographed each location for verification. Inspectors noted cables which needed to be supported off the tunnel floor as well as locations with trash on the cables. No exceptions were taken during the inspections.</p> <p>FWSO noted two defects related during the track walk.</p> <p>Defects:</p> <ol style="list-style-type: none"> E1 244+00-240+00 – Three (3) pieces of continuous welded rail (CWR) were obstructing the area between the running rail and the safety walk. E1 196+00-190+70 – Drains were completely clogged in this area, allowing for standing water and mud to build up. FWSO noted clogged drains in other locations, but no water was present. 						Number of Defects		2					
							Recommended Finding?		Yes					
							Remedial Action Required?		Yes					
							Recommended Reinspection?		Yes					
Remedial Action	<ol style="list-style-type: none"> WMATA must remove CWR rails from E1 244+00 to E1 240+00 to allow unencumbered access to safety walk. WMATA must clear drains between E1 196+00 and E1 190+70 to allow water to drain, and must inspect the remaining drains between E06 and E04 to ensure they are clear. 													

Inspection Activity #	3	Inspection Subject	Roadway Access Guide Verification				Activity Code	SAF	RAG	OBS
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United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Job Briefing Employee Name/Title	TRPM 1271				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1430	Outside Shift	No
Related Reports	N/A				Related CAPS / Findings		N/A					
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference		
	MSRPH											
	RWPM											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X								X			
Line(s)	E	Track Number	1	Chain Marker and/or Station(s)			From		To			
							E06		E04			
Vehicles	Head Car Number		Number of Cars		Equipment			N/A				
	N/A		N/A									
Description	FWSO reviewed WMATA's Roadway Access Guide. One discrepancy was noted. Defect: E1 161+00-143+00 is noted as "Clear View" in WMATA's Roadway Access Guide, but it has a curve. Additionally, WMATA's Roadway Access Guide does not describe the requirements for a section of track to be marked as a "Curve: Restricted View" or a "Blind Spot".							Number of Defects		1		
								Recommended Finding?		Yes		
								Remedial Action Required?		Yes		
								Recommended Reinspection?		Yes		
Remedial Action	1. WMATA must review the area between E1 161+00 and the E04 platform and revise the Roadway Access Guide if necessary. 2. WMATA must clarify the requirements for areas to be noted as "Curve: Restricted View" or "Blind Spot".											

Inspection Activity #	4	Inspection Subject	General Safety Concerns				Activity Code		SAF	RC	OBS	
Job Briefing Employee Name/Title	TRPM 1271				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1430	Outside Shift	No
Related Reports	N/A				Related CAPS / Findings		N/A					
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference		
	MSRPH											
	RWPM											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X								X			
Line(s)	E	Track Number	1	Chain Marker and/or Station(s)			From		To			
							E06		E04			
Vehicles	Head Car Number		Number of Cars		Equipment			N/A				
	N/A		N/A									
Description	Two other safety concerns were noted by FWSO inspectors. Defects: Trains are not maintaining 10 miles per hour while passing work crews as required by Permanent Order T-16-07. The following trains did not comply with the speed restriction: 1030 – Train with trailing car 7040 1115 – Train with lead car 7122 1126 – FWSO could not identify car number (located at E1 202+00) 1226 – FWSO could not identify car number (located at E1 154+00) 1239 – FWSO could not identify car number (located at E1 149+00) A TRST crew that walked past the mobile work gang (two TRST inspectors and one contractor) were walking side by side. There was no member of the gang assigned as the watchman far enough ahead to provide ample warning to the work gang.							Number of Defects		2		
								Recommended Finding?		Yes		
								Remedial Action Required?		Yes		
								Recommended Reinspection?		Yes		



Remedial Action	<ol style="list-style-type: none">1. WMATA must continue to emphasize compliance with T-16-07 and should consider providing train operators with a length of time to maintain 10 miles per hour once the last roadway worker is passed to ensure that the entire consist has passed the work gang.2. WMATA must continue to emphasize to TRST proper RWP set up when using Train Approach Warning.
------------------------	---



Photos:



CWR Pieces encumbering access to Safety Walk from the ROW



Standing Water due to clogged drains E1 196+00



Curve starting at 161+00



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration**Agency/Department Information**

Inspection Date	YYYY	MM	DD	Report Number	20161101-WMATA-AD-1		
	2016	11	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	TNG
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive Landover, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TNG					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Safety Stand Down			Activity Code		RTRA	TNG	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	0800-0900	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference				
								Permanent Order T-16-07 Rev 1						
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
					X							X		
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)			From		To					
							N/A		N/A					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	FWSO inspector observed the WMATA's Safety Stand Down class at the Carmen Turner Facility. The training instructor was an experienced WMATA employee who had the ability to convey her knowledge and experience to the students. The instructor encouraged students to actively participate in the class. A review of the October 20 th near miss incident was discussed with a review of Permanent Order No. T-16-07 Rev 1 and Safety Alert SA #16-10b.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.14 11:03:13 -05'00'	Date
Inspector in Charge - Name	Ambur Daley		Inspection Team	Chris DiFatta



	<p>The instructor covered the following items during the class:</p> <ul style="list-style-type: none">• Hot spots and locations• No clearance zones• Requesting foul time• Radio communications• ICAO phonic alphabet• Advance watchman lookout and Speed vs. Need Chart• Good faith challenge• Operator procedures with workers on the track• Near miss reporting		
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161113-WMATA-AD-1		
	2016	11	13				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	OPS SAFE	Sub- Department	ROQT
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
Inspection Location	West Falls Church Yard – S&I Building Break Room						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-TNG-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Safety Stand Down Training Observation			Activity Code		OPS	TNG	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A		Out Brief Conducted	Yes	Time	1200 – 1500	Outside Shift	Yes		
Related Reports	N/A			Related CAPS / Findings			N/A							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference				
	RWPM													
	MSRPH		T-16-07, rev. 1											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
					X							X		
Line(s)	N/A	Track Number	N/A		Chain Marker and/or Station(s)		From		To					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	General Observations: <ul style="list-style-type: none">Instructor provided a safety contact related to leaves on the roadway and roads that become very slippery when wet.The instructor provided an overview of the near-miss incident that occurred October 20, 2016.The presentation was provided in Power Point as a handout. (See							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.16 09:43:55 -05'00'	Date
Inspector in Charge – Name	Ambur Daley			
Inspection Team	Robert Maniuszko			

Form FTA-IR-1

Version date: 8/26/16



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<p>attached.)</p> <ul style="list-style-type: none">• The presentation covered the roles and responsibilities of the RWIC, RWP Rules, Exclusive Track Occupancy (ETO), Foul Time (FT), Radio Rules, Repeat Backs, Close Call Reporting, and the process for Good Faith Challenges.• The presentation also included a discussion of the revised temporary order T-16-07.• The FWSO inspector was the only participant in this presentation.• The opportunity for discussion was provided.• The instructor was knowledgeable of the RWP rules and requirements. She provided answers to questions and facilitated discussion. <p>Note: There were no exceptions taken to any part of the presentation.</p>		
Remedial Action	N/A		

Note:

There are three (3) attachments to this report.

1. Power Point Presentation
2. Near Miss Safety Bulletin
3. Permanent Order T-16-07, rev. 1

1

Safety Stand Down Roadway Work and Hot Spots



2

Introduction

- ▶ Safety Contact
- ▶ Introductions
- ▶ Emergency Information
- ▶ Rules/Expectations

3

Purpose

- ▶ To inform and educate Roadway Workers in Charge (RWIC) on identifying Hot Spots including No Clearance Zones and the use of Foul Time (FT) to establish Exclusive Track Occupancy (ETO) Roadway Protection
- ▶ To inform all rail workers that safety is the foundation of all decision making within the Roadway Worker Protection program.
- ▶ To ensure Roadway Workers understand all procedures and know how to challenge the level of protection
- ▶ To ensure Roadway Workers and Rail Operators report any near misses

4

Agenda

- ▶ Review of October 20th Incident
- ▶ Review of RWP Rules
- ▶ Review of Good Faith Challenge
- ▶ Review of Safety Alert SA #16-10b
- ▶ Review of Revised Permanent Order No. T-16-07, Rev 1
- ▶ Near Miss/Confidential Close Call Reporting

Review of October 20th Incident

5

- ▶ On Thursday, October 20th at 12:30 pm, two FTA inspectors and two escorts were conducting a walking inspection south of National Airport
 - ▶ The work crew was on Track 2 operating under Train Approach Warning (TAW)
 - ▶ The crew was walking through an identified hot spot
 - ▶ The watchman was 100 feet ahead of the other crew members
- ▶ Once the crew entered the hotspot, the watchman no longer had ample time to warn the other workers of approaching trains
- ▶ A train approached the work area. The crew was able to reach a place of safety. The train was not able to stop until having travelled through the area the crew was walking in.

Findings

6

- ▶ Conditions at the site required additional protection
- ▶ The RWIC failed to establish adequate protection
 - ▶ These conditions require the workers to be in a place of safety until they clear the curve or the RWIC must declare FT
- ▶ The rail operator failed to report the Near Miss to Rail Operations Control Center (ROCC) as required

Roadway Worker Protection Procedures

7

Hot Spots are locations on the railroad where additional Roadway Worker Protection is required

- ▶ Curves, hills and tunnels with limited visibility
- ▶ Bridge locations with limited or no clearance
- ▶ Track locations with limited or no visibility due to obstructions
- ▶ Tunnels with limited and close clearance
- ▶ Track locations with heavy outside noise
- ▶ Track locations with little or no clearance
- ▶ All Portals



Roadway Worker Protection Procedures

8

No Clearance Zones

Areas on the roadway where there is no safe distance between trains or rail equipment and workers

- ▶ Do not have a safety walk that can be accessed without crossing the third rail
- ▶ Has a safety walk that is still within the dynamic envelope of the train



Requesting Foul Time to Cross Hot Spots 9

- ▶ When there are Hot Spots that are a danger to Roadway Workers, the WMATA Escort shall request Foul Time protection from the ROCC to cross that area
- ▶ Once all Roadway Workers are clear of the Hot Spot, the escort shall contact the ROCC and turn in the Foul Time



Requesting Foul Time 10

▶ Foul Time Protection Procedure is established by:

1. Notifying ROCC of the need to STOP all rail traffic in a specific area; **and**
2. Notifying ROCC for the reasons for stopping all rail traffic in a specific area; **and**
3. Receiving confirmation from ROCC that all rail traffic within the requested work zone has been STOPPED.

Communication Procedures 11



Radio Communications 12

- ▶ Using the radio is the standard for communication at WMATA
- ▶ Radio communication supports safe and efficient rail operation
- ▶ Not using a standardized and formal protocol for radio communications and broadcasting can have serious impacts on rail operations
- ▶ Using a standardized protocol will ensure clarity and consistency across user groups

Radio Communications Transmission

13

Each radio user is responsible for use of assigned radios and compliance with:

- ▶ Federal Communications Commission (FCC) Rules and Regulations
- ▶ WMATA Rules, Procedures, and General Notices
- ▶ Metrorail Safety Rules and Procedures Handbook (MSRPH) General Rules 1.69 thru 1.88 – provide requirements for when and how radio communication should be used
- ▶ MSRPH General Rule 1.8 – requirement to immediately obtain additional information if a radio transmission is not understood

Radio Communications Protocol

14

- ▶ Required identification (MSRPH 1.78) - all personnel must begin radio transmissions with:
 - ▶ **Identifier:** Train/Unit/Call Number or Name/Title
 - ▶ **Location:** Line, Track Number, Station, and/or Chain Marker

Radio Communications Repetition

15

Repetition – Ensuring clear communication

- ▶ Employee receiving a transmission shall always repeat it back to the person transmitting (MSRPH 1.79)
- ▶ If the repeat back is incorrect, the original sender needs to restate the message until an accurate repeat back is received
- ▶ Neither party should take any action until they are positive that all radio transmissions or receptions are heard, fully understood, and acknowledged

Radio Communications Repetition

16

- ▶ If a repeat back is **not** received correctly, attempt to **spell** the words or annunciate the letters using the International Civil Aviation Organization (ICAO) **Phonetic Alphabet** to assist with clarification
- ▶ Examples:
 - ▶ K99 - Kilo ninety-nine
 - ▶ Drainage Pumping Station (DPS) - Delta-Papa-Sierra

Requesting Foul Time Protection

17



- Central, this is Unit (Track) 6061 (six-zero-sixty-one) on the platform at Rhode Island Avenue, over

Requesting Foul Time Protection

18



- Unit 6061 at Rhode Island Avenue, Central, go ahead with your message, over.

Requesting Foul Time Protection

19



- Central, Unit 6061 requesting foul time to remove an object from the Roadway at Chain Marker Bravo One, 180+00 (one-eighty plus zero zero), over.

Requesting Foul Time Protection

20



- Unit 6061 at Rhode Island Avenue, Central acknowledges your request for foul time at CM Bravo One, 180+00 to remove object from the roadway.
- Is that affirmative unit 6061, over?

Requesting Foul Time Protection

21



- ▶ "Central, Unit 6061, that is affirmative, over."

Requesting Foul Time Protection

22



- ▶ Unit 6061, all trains are stopped in your area. You are granted foul time between Rhode Island Avenue and Brookland stations CM Bravo One, 180+00
- ▶ Contact central when you are back on the platform and clear of the Roadway. Your on track time is 1300hrs (thirteen hundred hours), over

Requesting Foul Time Protection

23



- ▶ Central , Unit 6061, copy that I'm granted foul time between Rhode Island Ave and Brookland stations CM Bravo One, 180+00
- ▶ I will notify central when I am back on the platform and clear of the Roadway, my on track time is 1300hrs, over

Requesting Foul Time Protection

24



- ▶ Unit 6061 this is central that's affirmative, out



- ▶ Central, this is Unit 6061 on the platform at Rhode Island Ave, over

Turning in Foul Time

25



- Unit 6061 at Rhode Island Ave, Central, go ahead with your message, over

Turning in Foul Time

26



- Central, Unit 6061, I am back on the platform at Rhode Island Ave station CM Bravo One, 180+00
- All personnel and the object are clear of the Roadway, over

Turning in Foul Time

27



- Unit 6061, Central copies that all personnel and the object are clear of the Roadway at Rhode Island Ave station CM Bravo One, 180+00
- Your off track time is 1310hrs (thirteen ten hours), over

Turning in Foul Time

28



- Central, Unit 6061, copy my off track time is 1310hrs. Thank you Central, over and out

Advance Watchman/Lookout

29



Advance Watchman/Lookouts

30

- ▶ Watchman/Lookouts should be placed in locations which maximize the amount of time workers have to get to a place of safety before the approach of trains or rail vehicles arrive at the work location
- ▶ If curves, a hill, noise or other interference obstructs the ability to detect trains, use as many Watchman/Lookouts as necessary to ensure proper protection

Speed (MPH)	Feet per second	Feet per 15 seconds
10	14.7	221
15	22.0	330
20	29.3	440
25	36.7	551
30	44.0	660
35	51.3	770
40	58.7	881
45	66.0	990
50	73.3	1,100
55	80.7	1,211
60	88.0	1,320
65	95.3	1,430
70	102.7	1,541

Advance Watchman/Lookouts

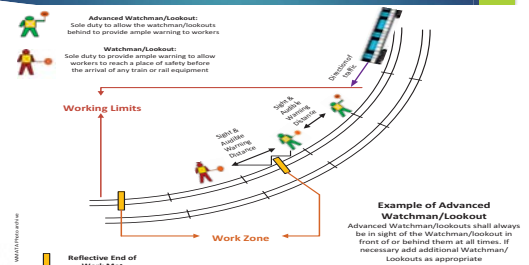
31

Advance Watchman/Lookout

- ▶ A qualified Watchman/Lookout who is in addition to the Work zone Watchman/Lookout
- ▶ Watchman/Lookouts shall ALWAYS be within sight and audible warning of the next or preceding Watchman/Lookout
- ▶ The sole duty of the Advance Watchman Lookout is to warn the work zone Watchman/Lookout of the approach of trains or rail equipment

Advance Watchman/Lookouts

32



Good Faith Challenge

33



Good Faith Challenge

34

Any Roadway Worker who determines that the level of protection is insufficient for the work area must make a Good Faith Challenge

- ▶ Employees are able present a Good Faith Challenge any time during the work period, and not just after the pre-job Roadway Job Safety Briefing
- ▶ They must immediately notify the RWIC of the on-track protection concern
- ▶ The RWIC shall try to resolve the on-track protection issue to the satisfaction of all

Good Faith Challenge

35

- ▶ The Roadway Worker who made the challenge has the right to remain clear of the Roadway until the issue has been resolved
- ▶ Any other Roadway Workers who are sympathetic to the challenge may remain clear
- ▶ If the issue cannot be resolved, the RWIC will request the next highest level of authority to respond

Good Faith Challenge

36

- ▶ The Responding Authority shall interview the concerned roadway worker and determine if :
 - ▶ The worker's statement of the Roadway safety protection or practice at the work location is accurate
 - ▶ The Roadway safety protection or practice at the work location complies with the RWPM
- ▶ The responding authority will document the Good Faith Challenge by completing form GFC-10
- ▶ The worker has the right to request SAFE to respond if they are not satisfied

Good Faith Challenge

37

Can I do a Good Faith Challenge for all safety concerns?

- ▶ All Roadway Workers are encouraged to bring safety concerns to supervision's attention, through the Gang Leader, RWIC or escort. Supervision must work to resolve safety concerns and escalate issues to management when they are unable to do so.

Revision to Permanent Order No. T-16-07, Rev.1

38

Revised Permanent Order T-16-07, Rev.1 which requires equipment to operate at 10 mph or less when roadway workers are present on the same track

- ▶ In work zones, Class II vehicles must not exceed 5 mph on the same track where workers are present

Operator Procedures Workers on Same Track

39

Operator Responsibilities

- ▶ Maintain a constant lookout
- ▶ When persons are observed on the roadway
 - ▶ Sound the mainline horn with 2 long sounds
 - ▶ Immediately reduce the vehicle speed to 10 mph
- ▶ If personnel do not immediately clear and acknowledge, stop the train at least one car length away from the watchman's position
- ▶ Contact ROCC if acknowledgement is not received and await instructions before moving the train

Operator Procedures Workers on Same Track

40

Once the operator receives a proceed signal

- ▶ Verify that equipment and personnel are clear
- ▶ Acknowledge with two short mainline horn blasts
- ▶ Stop and switch to Mode 2, Level 1 if not in manual mode
- ▶ Do not sound horn after making acknowledgement while travelling by the work gang
- ▶ Continue at 10 mph until clear of all personnel
- ▶ 10 mph must be maintained until the entire train has cleared the workers

Operator Procedures Workers on Opposite Track

41

Operator Responsibilities through established work zones on the opposite track

- ▶ Maintain a constant lookout
- ▶ When persons are observed on the roadway
 - ▶ Sound the mainline horn with 2 long sounds
 - ▶ Immediately reduce the vehicle speed to 35 mph
- ▶ Proceed at 35 mph or lower or as directed by the RWIC or ROCC until the rail vehicle has passed the workers
- ▶ Be prepared to stop if conditions warrant

CSX Rule Book



Operator Procedures Center Safety Walk

42

Locations where the place of safety is located between two parallel tracks

- ▶ When Roadway Workers are observed
 - ▶ Immediately reduce the vehicle speed to 10mph
 - ▶ Maintain 10mph until the entire rail vehicle is past the workers
- ▶ Be prepared to stop within half the range of vision when observing Roadway Workers in the area
- ▶ The RWIC will avoid having two trains passing the work gang at the same time
- ▶ RWIC will ensure safety by stopping vehicle movement on the same track to allow a vehicle on the opposite track to pass first.

CSX Rule Book



Center Safety Walks

43

- ▶ Dupont (A03) to Woodley Park (A04)
- ▶ National Airport Aerial Structure (C10 to CM 408+00)
- ▶ L Line Bridge (F03 to C07)
- ▶ Grosvenor Aerial Structure
- ▶ J Line Aerial Structures
 - ▶ Cameron Run
 - ▶ Eisenhower Avenue
 - ▶ Clermont Avenue
 - ▶ CSX Railroad

CSX Rule Book



Operator Procedures Class II in Work Zones

44

Roadway Maintenance Machines (Class II) in established work zones

- ▶ Shall not be operated above 5 mph
- ▶ Operator shall be prepared to stop within $\frac{1}{2}$ the range of visibility
- ▶ Operator shall be on the lookout for Roadway Workers, obstructions, broken rail and misaligned switches

CSX Rule Book



Near Miss Reporting

45

A **Near Miss** is an unplanned event that did not result in injury or damage but had the potential to do so

- ▶ Near miss reporting is vital to preventing future fatal or catastrophic incidents
- ▶ Allows WMATA to identify and correct weaknesses in the system that led to the near miss
- ▶ Investigation results provide an opportunity to improve safety systems, training, communications and other hazard controls

Near Miss Reporting

46

MSRPH Rule 1.32

*Employees involved in, witnessing, or informed of an accident or incident, **to include near misses**, on the Metrorail system shall inform their supervisor, Transit Police, ROCC and/or other appropriate authority as soon as possible, and shall file a written report*

MSRPH Rule 4.1

Employees shall immediately report hazardous and/or unsafe conditions to their supervisor, including all near misses

Near Miss Reporting

47

MSRPH Rule 3.87 as revised by T-16-07, Rev. 1

Rail vehicle operators shall maintain a constant lookout in the direction in which their vehicles are moving.

- a. Rail Vehicle Operators shall report all near misses to ROCC.*

Near Miss Reporting

48

Report a Near Miss by

- ▶ Notifying the RWIC
- ▶ Notifying the ROCC
- ▶ Informing your supervisor
- ▶ Calling the Safety Hotline
- ▶ Contacting Metro Transit Police Department (MTPD)

Confidential Close Call Reporting

49

The Confidential Close Call System give employees a means to report near misses WMATA would not otherwise know about while maintaining anonymity and receiving protection from discipline

Information from your close call report makes the work environment safer and healthier for you and your co-workers. From your close call report, WMATA can identify and correct factors that contribute to accidents and/or injuries




Close Call Reporting

50

The Bureau of Transportation Statistics (BTS) administers a voluntary, confidential and non-punitive close call reporting system


- ▶ Supported by WMATA, ATU 689 and IBT 922
- ▶ Purpose is to improve transit safety through the report of incidents that WMATA would not otherwise know about
- ▶ Determines the root cause and develops preventative safety actions to prevent future occurrences




Close Call Reporting

51

Report a Close Call by:

- ▶ Start the initial report within 16 hours of the event
 - ▶ 
- ▶ Finish the report online within 24 hours of the event





Summary

52

Remember

- ▶ All Roadway Workers must have the appropriate level of protection in place
- ▶ RWICs are responsible for the safety of workers and must adjust the level of protection according to the conditions
- ▶ Good Faith Challenges, Confidential Close Call and Near Miss reporting enhance the safety culture of WMATA



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Questions?



Safety ALERT

SA #16-10b

October 25, 2016

Near Miss Roadway Worker Collision: Hot Spots Require Additional Protection

The Roadway Worker in Charge (RWIC) establishes the required level of protection for a work crew; however, all roadway personnel must perform Individual Train Detection (ITD) at all times to ensure their safety. Therefore, all personnel must follow cardinal rule RWPCR2:

- **Employees shall expect, and be vigilant of, train or equipment movement in all directions at all times.**

On Thursday, October 20, 2016, at approximately 1230 hours, a four-person inspection crew, operating under Train Approach Warning (TAW), and consisting of two Track and Structures escorts and two FTA inspectors reported a near miss incident on track #2 at chain marker C2 406+00. The inspection crew reported a train passed them in excess of the 10 mph speed restriction and did not signal using their mainline horn as required by Permanent Order T-16-07. The inspection crew was in the roadway at the time, but was able to reach a place of safety prior to the train reaching their location. The train stopped with the trailing car adjacent to the inspection crew. This area is identified as a Hot Spot in the Roadway Access Guide.

Preliminary information shows that one of the escorts was acting as a watchman and was located approximately 100 feet in advance of the roadway workers. The other escort was acting as the RWIC. A review of the incident and the Roadway Worker Protection Manual (RWPM) indicates that the inspection crew was not acting in compliance with the required level of protection for working in a Hot Spot.

When working under TAW, a mobile work gang, defined as “a moving group of two or more workers engaged in a common task,” is required to have designated Watchman/Lookout(s). The sole duty of the Watchman/Lookout is to provide ample warning for workers to clear to a place of safety. Ample Time requires workers to be in a place of safety no less than 15 seconds prior to the arrival of a train or rail equipment. In this instance, the inspection crew was in compliance with the Watchman/Lookout requirement prior to reaching the defined Hot Spot; however, when inspecting, performing maintenance, or walking in the roadway through a Hot Spot or any area that restricts the ability to see approaching trains, additional protection such as Foul Time, must be established.

In this instance, the work crew should have requested Foul Time to perform the inspection and/or established Exclusive Track Occupancy (ETO).

Foul Time: As defined in the Metrorail Safety Rules and Procedures Handbook (MSRPH), SOP #28 and RWPM page 43, **Foul Time is appropriate for short time periods in specific segments of track, such as blind spots and no clearance zones.** Establishing Foul Time requires three elements:

1. Notify ROCC of the need to STOP all rail traffic in a specific area
2. Provide a reason for stopping rail traffic (e.g., To measure gauge in a blind spot)
3. Wait in a place of safety until ROCC confirms that all rail traffic within the requested area has been stopped.

ETO: (RWPM Page 22, Rule 1.76) The RWIC shall invoke Exclusive Train Occupancy (ETO) when there are **blind spots or visual impediments** or No Clearance Zones and shall request ROCC to hold all vehicles at the preceding station using Foul Time (FT) until ETO Protection can be established.

- *Note: In this case, additional Advanced Watchman/Lookouts would have been required to establish ETO based on the blind spot created by the curve and active movement on the adjacent track.*

Good Faith Challenge: Roadway workers are encouraged to raise Good Faith Challenges any time there are unclear and/or unresolved on-track protection issues. Employees are empowered to make such claims and must remain clear of the roadway until the identified issue is resolved. Per the RWPM, “When a roadway worker determines that the roadway protection is insufficient in their work area, **they MUST immediately notify the RWIC**. The worker and the RWIC shall try to resolve On-Track protection issues.”

In the event that the worker and RWIC cannot resolve the issue, the RWIC shall immediately request the next highest level of authority to respond to the scene. The request must be made from a place of safety. The responding authority will record the challenge on the GFC-10 form and attempt to resolve the issue. If the worker’s concern remains unresolved after being shown that the work area is compliant with the RWPM and MSRPH, this must be noted on the form and forwarded to SAFE for response to the worker within 10 working days. Copies of all completed GFC-10 forms must be delivered to SAFE, the General Superintendent or Director of the division, the superintendent, employee file, Local 689, and Training.

Near Miss Reporting: In the event that a near miss incident occurs, it must be reported as per MSRPH cardinal rule 1.32:

- Employees involved in, witnessing or informed of an accident or incident, **to include near misses**, on the Metrorail system shall inform their supervisor, Transit Police, ROCC, and/or other appropriate authority as soon as possible, and shall file a written report.

**Washington Metropolitan Area Transit Authority
Department of Safety and Environmental Management**

Advance Watchman/Lookouts

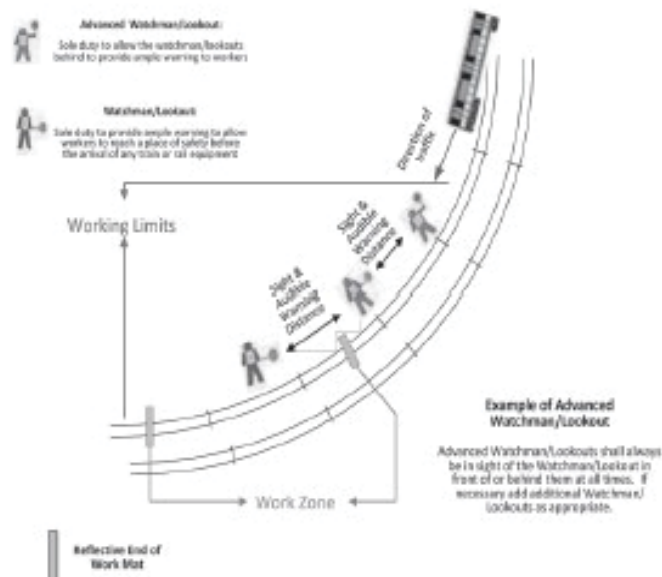
Speed vs. Need

Watchman/Lookouts & Needed Work Limits

Speed (MPH)	Feet per second	Feet per 15 seconds
10	14.7	221
15	22.0	330
20	29.3	440
25	36.7	551
30	44.0	660
35	51.3	770
40	58.7	881
45	66.0	990
50	73.3	1,100
55	80.7	1,211
60	88.0	1,320
65	95.3	1,430
70	102.7	1,541

Watchman/Lookouts should be placed in locations which maximize the amount of time workers have to get to a place of safety before the approach of trains or rail vehicles arrive at the work location.

If curves, hill, noise or other interference obstruct the ability to detect trains, use as many Watchman/Lookouts as is necessary to ensure proper protection.



If additional information is required, contact your Regional Safety Officer or call the Safety Hotline on [REDACTED]



Washington Metropolitan Area Transit Authority

METRORAIL SAFETY RULES AND PROCEDURES HANDBOOK

PERMANENT ORDER

NO. T-16-07, Rev. 1: 10 MPH for Rail
Vehicle Speed Restriction on Tracks
where Workers are Present

Date: Wednesday, October 26, 2016

TO: All Personnel

Permanent Order **T-16-07, Rev. 1** supersedes Permanent Order T-16-07. Permanent Order **T-16-07, Rev. 1** requires a **10 MPH** Speed Restriction on tracks where personnel are present on the same track. In work zones, Class II vehicles must not exceed **5 MPH**.

Permanent Order **T-16-07, Rev. 1** modifies:

Operating Rule 3.87:

- 3.87 Class I and Class II Rail Vehicle Operators shall maintain a constant lookout in the direction in which their vehicles are moving. When Rail Vehicle Operators observe persons on the roadway, they shall:
- a. Sound mainline horn (**2 Long Sounds**) to warn those people of the vehicle's approach and immediately reduce the train's speed to **10 MPH**. When personnel are located on the same track as the operating rail vehicle, and they do not physically clear the roadway to a place of safety and appropriately acknowledge the horn signal; the Rail Vehicle Operator shall bring the vehicle to an immediate stop one car length away from the watchman's position. The Rail Vehicle Operator shall contact the Rail Operations Control Center (ROCC) and await their instructions before moving the vehicle. Rail Vehicle Operators shall report all near misses to ROCC.
 - b. Upon receiving the appropriate proceed signal from the watchman/lookout on the roadway, and verifying that all personnel and equipment are clear of the roadway, the Rail Vehicle Operator shall:
 - acknowledge the proceed signal with two short mainline horn blasts

(individuals on the roadway do not have to continually proceed trains after the Rail Vehicle Operator's acknowledgement);

- stop and switch to Mode 2, Level 1 if not already in manual mode;
- discontinue sounding train horn after acknowledgement, and;
- continue at **10 MPH** until the entire train is past personnel.



Notice: Rail Vehicles Operating on Opposite Track of established work zones: Clearing of the track shall not apply to roadway workers with designated watchman/lookouts working on the opposite track **unless** directed by the RWIC or ROCC. If applicable, the Roadway Workers shall acknowledge the approaching train by facing the train and giving/displaying the proceed signal. The Rail Vehicle Operator shall acknowledge with two **short** horn blasts and proceed at no more than 35 MPH or at a lower regulated speed or as directed by the RWIC or ROCC **and be prepared to stop if conditions warrant.**



Important: Class II Rail Vehicle Operators are reminded of the following RWP Cardinal Rule and MSRPH Operating Rule 3.83 which state in part:

RWPCR 7 – Rail Roadway Maintenance Machines (RMM) shall not operate at speeds more than **5 MPH** within any working limits and shall be prepared to stop within $\frac{1}{2}$ the range of visibility, be on the lookout for Roadway Workers, obstructions, broken rail and misaligned switches.

MSRPH OR 3.83 - The maximum authorized speed of Class II vehicles is that which is specified by the equipment manufacturer or as specified by ROCC, and in all cases shall not exceed 30 MPH.



Notice: The following areas have a place of safety located between the centers of two (2) parallel tracks. Rail Vehicle Operators must reduce the speed of their train to **10 MPH** until the entire train is past the workers and be prepared to stop within half their range of vision when observing Roadway Workers in this area. RWIC will ensure their work gang's safety by stopping train movement on the same track the rail vehicle is operating on if train moving on the opposite track is passing at the same time:

- Dupont to Woodley Park – A03 – A04
- National Airport Aerial Structure – C10 to chain marker 408+00
- J Line Aerial Structures
 - Cameron Run
 - Eisenhower Ave
 - Clermont Ave

- **CSX Railroad**
- **L Line Bridge – F03 to C07**
- **Grosvenor Aerial Structure**



Important: Hot spots are locations on the railroad where additional Roadway Worker Protection is required!

These physical locations include a variety of conditions, including:

- Curves, hills and tunnels with limited visibility
- Tunnels with limited and close clearance
- Track locations with heavy outside noise
- Track locations with limited or no clearance
- Bridge locations with limited or no clearance
- Track locations with limited or no visibility due to obstructions
- All Portals

Operating Rule 3.164:

3.164 When flagging protection is observed on the roadway or by communication from ROCC, the Rail Vehicle Operator shall:

- a. Reduce speed to not more than **10 MPH** upon observing employees and be prepared to stop one car length away from the roadway flag person or watchman/lookout signal;
- b. Change to low beam headlights; and
- c. Operate at no more than **10 MPH** until the entire consist is clear of personnel on the roadway unless directed otherwise by the RWIC or ROCC.

Approval of Permanent Order T-16-07, Rev. 1

[Redacted Signature]

Director, ROCC
Chair, Rail Rule Book Committee

[Redacted Signature]

Concur: [Redacted Signature]
Managing Director
Department of Rail Transportation

[Redacted Signature]

Approved: [Redacted Signature]
Assistant General Manager
RAIL

[Redacted Signature]

Approved: [Redacted Signature]
Chief Safety Officer
Department of Safety and
Environmental Management

Attachment: Permanent Order T-16-07



Washington Metropolitan Area Transit
Authority

METRO RAIL SAFETY RULES AND PROCEDURES HANDBOOK

PERMANENT ORDER

NO. T-16-07 Introduction of 10 MPH
Speed Restriction on Tracks where
Workers are Present

Date: Friday, June 24, 2016

TO: All Personnel

Permanent Order T-16-07 introduces a 10 MPH Speed Restriction on tracks where personnel are present.

Additions to rules and procedures are shown in bold and underline text; deletions are struck-through.

MSRPH Operating Rule 3.87:

3.87 Rail vehicle operators shall maintain a constant lookout in the direction in which their vehicles are moving. When rail operators observe persons on the roadway, they shall:

- a. Sound a whistle horn (**2 Long Sounds**) to warn those people of the vehicle's approach. If personnel do not physically clear the roadway and appropriate acknowledgement of the horn signal is not received, the vehicle shall be brought to an immediate stop and the train operator shall contact the Rail Operations Control Center (ROCC) and await their instructions before moving the train. Train Operators shall report all near misses to ROCC.

Notice: Opposite Track Trains: Clearing of the track This rule shall not apply to gang(s) with designated watchman/lookouts working on the opposite track. The watchman/lookout Roadway workers shall acknowledge the approaching train by facing the train and giving/ displaying the proper proceed/clear signal. The Train Operator shall acknowledge with two **short** horn blasts **and be prepared to stop if conditions warrant it**. The gang shall not have to clear the tracks.

- b. Upon receiving the appropriate proceed/clear signal from the watchman/lookout on the roadway, and verifying that all personnel and equipment are clear of the roadway, the Train Operator shall
 - acknowledge the proceed/clear signal with 2 short mainline horn blasts (individuals on the roadway do not have to continually proceed trains after the Train Operator's acknowledgement);
 - stop and switch to Mode 2, Level 1 if not already in manual mode;
 - discontinue sounding train horn after acknowledgement, and;
 - continue at 35 10 mph until clear of personnel on either track.

MSRPH Operating Rule 3.164:

- 3.164 When flagging protection is observed on the roadway or by communication from ROCC, the Train Operator shall:
- a. Reduce speed to not more than 35 10 mph and be prepared to stop at roadway flag person or watchman/lookout signal;
 - b. Change to low beam headlights, and;
 - c. Operate at no more than 35 10 mph unless directed otherwise by the RWIC or ROCC.

MSRPH SOP #28 PROTECTION FOR ROADWAY WORKERS AND ESTABLISHMENT OF THIRD-RAIL POWER OUTAGES AND WORK AREAS ON THE ROADWAY:

- 28.5.12.1.1 Coordinate with ROCC, the application of a shunt strap on the work track in accordance with the established traffic direction. The shunt strap(s) shall be applied at a track location that will assure trains enter and travel a significant portion of the work area at a speed not to exceed 10 mph. At least one train on each track shall be allowed to operate through the affected area to observe that the desired speed has been achieved before work begins. The shunt strap must be verified by ROCC prior to the start of any work and remain in place until the work is complete and all crew members have cleared to the safety walk or other known clearance area. The shunt strap shall not be placed or removed in front of a train that is visible on the affected track. ROCC shall coordinate train movement through the affected area.



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161114-WMATA-AD-1		
	2016	11	14				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject			Rules Compliance & Safety Management Inspection (SMI) Required Actions Observation of Rail Traffic Controllers (RTC)			Activity Code		ROCC	RC	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1330 – 1730	Outside Shift	No	
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015			Related CAPS / Findings		Required Actions: R-1-2-a, Finding R-6 (R-1-6-a & R-1-6-b), R-1-7-b, R-1-8-a, R-1-9-a, and Finding R-14						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook		Section 1 – General Rules (Radio Usage and Operation): Rules 1.69 – 1.88		X		X		X			
	Permanent Order		NO. T-16-10									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A	
				X							X	
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)		From			To			
						N/A			N/A			
Vehicles	Head Car Number		Number of Cars		Equipment		N/A					
	N/A		N/A									
Description								Number of Defects		0		

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.12.05 19:08:32 -05'00'	Date
Inspector in Charge – Name	Ambur Daley			
Inspection Team	Tamara Powell			

Form FTA-IR-1

Version date: 8/26/16



	<p>An FWSO inspector met with the Assistant Superintendent of the Rail Operations Control Center (ROCC) to notify him that she would be conducting an observation of the Rail Traffic Controllers (RTC) at the OPS 2 console, which controls and oversees operations on the Silver, Orange, and partial Blue lines. The following observations were conducted:</p> <ul style="list-style-type: none">The FWSO inspector observed the radio transmissions and performance of two RTCs. RTC #1, the Button Controller, has been employed at WMATA for 10 years, with 1 year in the ROCC. RTC #2, the Radio Controller, was an external hire and has 3 years at WMATA in the ROCC.The FWSO inspector's observation and compliance check focused mainly on ROCC required actions and radio usage and operation (General Rules, #1.69 – 1.88 and Permanent Order T-16-10). The observation and compliance check was based on several findings from the SMI report, as well as rules from the MetroRail Safety Rules and Procedures Handbook. <p>Observations related to SMI report findings:</p> <ul style="list-style-type: none"><i>R-1-2-a: "WMATA must complete and maintain required annual recertifications for Rail Traffic Controllers."</i><ul style="list-style-type: none">One of the two RTCs recently completed the ROCC's Bridge Training, the two-week recertification program for RTCs.<i>R-1-6-a: "WMATA must establish and enforce a proper protocol for language and terminology that is used over the radio – to include 100 percent word-for-word read-back for safety-related instructions and unusual train movements."</i><ul style="list-style-type: none">Starting at 1004 hours, Track and Power personnel began calling the RTC over the radio to request permission to access the Right-of-Way (ROW) to perform maintenance activities.The RTCs ensured all requests were received properly through read-backs. Power and Track personnel each performed word-for-word confirmation of walking rights on the ROW. The RTC closed out each transmission by acknowledging, "That is a good copy," over the radio.<i>R-1-6-b: "As part of R-1-6-a, WMATA must establish an approach for communicating and managing all speed restrictions that require two-way communication between the ROCC and train operator and take full advantage of available electronic AIM system features."</i><ul style="list-style-type: none">Per policy, RTCs must conduct hourly radio broadcasts that include a full read out of the roadway worker protections (RWP), time confirmation, rule of the day, cardinal rule 1.79, and all operational anomalies in place. RTCs must also broadcast RWP announcements every twenty minutes.The required hourly broadcasts were observed on or near each hour, and the RWP announcements were observed at 20 – 30 minute intervals. RTCs also maintained a written log of all personnel on the ROW and recorded all call on/call off times.Additionally, the ROCC Director and supervisory staff have tools in place to monitor compliance with this directive. When there is a lapse in controller compliance, RTCs are required to maintain and submit written logs that document all announcements broadcasted during their shift. All reports that are reviewed for compliance must contain the types of broadcasts made during each shift, such as ROW access and level of protection, and the times must be recorded. This logging process remains in place until satisfactory compliance of all RTCs is achieved.<i>R-1-7-b: "WMATA must enhance RTC reference materials to direct internal operations at the ROCC, including...and internal ROCC administrative policies and procedures."</i><ul style="list-style-type: none">Per WMATA rules and policy (see Permanent Order T-16-10 and Operations Radio Communication Training), the ROCC has implemented a scripted reminder regarding proper radio usage that must be broadcast hourly to all RTCs. The reminder includes	Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No



	<p>requirements for proper radio communication, as well as requirements for announcements that notify personnel of elevator outages, authorized personnel on ROW, speed coupler locations, and SafeTrack updates.</p> <ul style="list-style-type: none">○ As mentioned above under R-1-6-b, the RTC made hourly broadcasts, as required, and all requirements of the ROCC announcement were followed with one exception: one field personnel unit did not provide word-for-word read back, but the RTC promptly made him stand by and enforced the mandate. <ul style="list-style-type: none">• R-1-8-a: <i>"WMATA must establish a clear policy that prohibits distractions from the use of cell phones and other electronic devices in the ROCC."</i><ul style="list-style-type: none">○ The FWSO inspector did not observe any RTC or other ROCC personnel in violation of said policy at any time during entire period of observation.• R-1-9-a: <i>"Until such time as electronic transfer records are implemented, WMATA must ensure that its RTC use paper-based logs with formal signatures."</i><ul style="list-style-type: none">○ The FWSO inspector observed a shift transfer for one RTC, which occurred at 1330 hours. The RTC notified the relieving employee of all operating conditions and anomalies, as well as all RWP in effect during time of transfer. The relieving employee logged into the Advanced Information Management (AIM) system before taking over operations of duties.• Finding R-14: <i>"While it has improved, the quality of WMATA's radio system is still poor in some locations."</i><ul style="list-style-type: none">○ The FWSO inspector observed poor radio communication on two occasions during time of monitoring. Train operators and personnel eventually received the radio transmission, but required a few read-backs until fully understood and acknowledged. <p>Additional observations:</p> <ul style="list-style-type: none">• The FWSO inspector observed the process of reenergizing a power section on the Orange Line between New Carrollton and Cheverly following track work. The RTC made all appropriate announcements about power restoration to field personnel and provided a one-minute window to notify him of any objections to restoral. The RTC informed all other line controllers of the power restoral as well. The other RTCs also made line announcements on their line, just in case any field personal was on the wrong radio Ops channel. Immediately following restoral, the RTC ran a line observation train to visually check for any anomalies.		
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161116-WMATA-AD-1		
	2016	11	16				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST OPS POWR SAFE	Sub- Department	Production RAIL CPDO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
Inspection Location	J-Line – Van Dorn to Franconia-Springfield – Track 1						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	SAFE-RWP-OBS	TRK-GEN-OBS	OPS-RC-OBS			
Inspection Units	1	1	1			
Inspection Subunits	2	2	13			
Defects (Number)	2	25	0			
Recommended Finding	No	No	No			
Remedial Action Required ¹	Yes	Yes	No			
Recommended Reinspection	No	Yes	No			

Activity Summaries:

Inspection Activity #	1	Inspection Subject				RWP – Job Safety Briefing and Field Implementation			Activity Code		SAFE	RWP	OBS
Job Briefing Employee Name/Title	SAFE #207 – RWIC SAFE #307 – Watchman/Lookout				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 – 1400	Outside Shift	No	
Related Reports					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH												
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X							X					
Line(s)	J-Line	Track Number	1	Chain Marker and/or Station(s)		From			To				
						J1 CM694+00			J1 CM885+00				
Vehicles	Head Car Number		Number of Cars		Equipment		N/A						
	N/A		N/A										

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY	Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY	Date
Inspector in Charge – Name Ambur Daley	Robert Maniuszko	Date: 2016.11.18 14:16:26 -05'00'	

Form FTA-IR-1

Version date: 8/26/16



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Description	Concerns:	Number of Defects	2
	1. A No Clearance Area exists between J1 CM762+00 to CM767+00. This area is not denoted in the Access Guide. There is an overhead bridge with a high support wall that blocks the view around a curve. The fence is labeled as "No Clearance". The FWSO team requested and was granted Foul Time to traverse this area.	Recommended Finding?	No
	2. During this inspection, particularly upon approach to the No Clearance Area and the bridge with the high support wall with a blocked view, it was apparent that the Advanced Watchman was put at risk in order to maintain his position several hundred feet ahead of the mobile work group. The Advanced Watchman was moving through these locations under Individual Train Detection (ITD) to protect the rest of the work group. This is a lesser protection than what is required in the Access Guide for employees in this location.	Remedial Action Required?	Yes
	General Observations:	Recommended Reinspection?	No
	<ul style="list-style-type: none"> At one point during the walk the FWSO team met up with ATC employees. These employees had an individual located in the Train Control Room with a radio. This individual was able to warn the workers of the approaching trains long before the train came into view. This methodology could prove to be useful to other groups as the RWP program matures. The Job Safety Briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Access Guide were used as part of the discussion. No exception was taken to the Job safety briefing. 		
Remedial Action	WMATA must update its Access Guide to accurately reflect the physical characteristics of the track between J1 CM694+00 and CM885+00.		

Inspection Activity #	2	Inspection Subject	Surge #8 Walkthrough – Track 1				Activity Code	TRK	GEN	OBS	
Job Briefing Employee Name/Title	SAFE #207 – RWIC SAFE #307 – Watchman/Lookout		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 – 1400	Outside Shift	No	
Related Reports	20160910-WMATA-RPM-1		Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	TRST1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	J-Line	Track Number	1	Chain Marker and/or Station(s)	From			To			
					J1 CM694+00			J1 CM885+00			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	Concerns:					Number of Defects	25				
	1. Several collector shoes were found in the vicinity of J1 CM731+00. The cover boards have been dislodged as well.					Recommended Finding?	No				
	2. A pile of collector shoes was also found adjacent to J1 CM826+20. The cover board was dislodged at this location as well. See photo below.					Remedial Action Required?	Yes				
	3. A heater control panel box labeled HC-J03-52-3 has still not been repaired. The box is open to weather and possible contact by employees. See photo below.					Recommended Reinspection?	Yes				
4. The majority of the third rail expansion cables have been replaced and moved to the field side of the third rail. One exception, see photo below.											
5. There are 17 locations where the Heater Control Fuse Boxes are lying on the ground in poor condition. The boxes are clearly marked 750Vdc and could pose a danger to employees, especially in inclement weather.											
	6. Three locations were found where the third rail anchor arms were dislodged.										
	7. At one location, one of two C-Bonds was found detached. This appears to be recent work.										



	<p>General Observations:</p> <ul style="list-style-type: none"> • Crossties have been replaced. • Ballast has been added, tamped, and regulated as necessary. • All ETS Boxes have been repaired, and each box now has a working blue light and clearly identified label. 		
Remedial Action	WMATA must complete repairs on the 25 items noted in the concerns above.		

Inspection Activity #	3	Inspection Subject	Rule Compliance – T-16-07, Revision 1				Activity Code		OPS	RC	OBS	
Job Briefing Employee Name/Title	SAFE #207 – RWIC SAFE #307 – Watchman/Lookout			Accompanied Inspector?		Yes	Out Brief Conducted	Yes	Time	1000 – 1400	Outside Shift	No
Related Reports				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference		
	MSRPH		T-16-07, Rev. 1									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X							X				
Line(s)	J-Line		Track Number	1	Chain Marker and/or Station(s)		From		To			
							J1 CM694+00		J1 CM885+00			
Vehicles	Head Car Number		Number of Cars		Equipment		N/A					
	N/A		N/A									
Description	The Following Trains were observed to be in compliance with Permanent Order T-16-07, Revision 1.							Number of Defects		0		
								Recommended Finding?		No		
	Lead Car #		Time		Remedial Action Required?		No					
	3029		1019		Recommended Reinspection?				No			
	3002		1024									
	6057		1030									
	3171		1050									
	6111		1100									
	2058		1103									
	3099		1105									
	5072		1109									
	8004		1112									
	6144		1133									
	6082		1157									
	3029		1225									
	3166		1248									
	Note: None of the trains passing on the active or adjacent track were found to be non-compliant with Permanent Order T-16-07, Revision 1.											
Remedial Action	N/A											



Figure 1 - J1 CM723+90 - Heater Control Fuse Box



Figure 4 - J1 CM769+80 - Heater Control Fuse Box



Figure 2 - J1 CM726+50 - 3rd Rail Anchor Arm Off

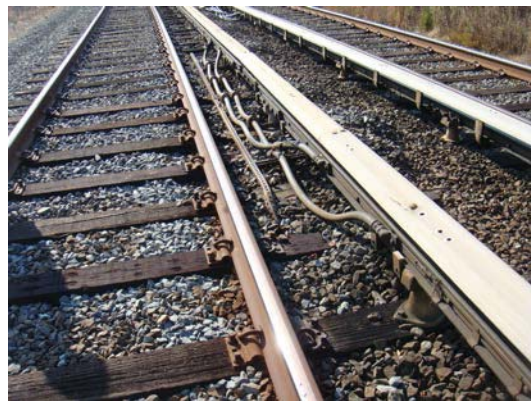


Figure 5 - 3rd Rail Expansion Cables still track side



Figure 3 - J1 CM731+60 - 3rd Rail Anchor Arm Off



Figure 6 - J1 CM777+40 - Heater Control Fuse Box



Figure 7 - J1 CM781+50 - Heater Control Fuse Box



Figure 10 - J1 CM797+00 - Heater Control Fuse Box



Figure 8 - J1 CM784+00 - Heater Control Fuse Box



Figure 11 - J1 CM812+00 - Heater Control Fuse Box



Figure 9 - J1 CM789+60 - Heater Control Fuse Box



Figure 12 - J1 CM819+00 - Heater Control Fuse Box



Figure 13 - J1 CM824+80 - Heater Control Fuse Box



Figure 16 - Pile of contact shoe adjacent to J1 CM826+20



Figure 14 - J1 CM826+00 - 3rd Rail Anchors



Figure 17 - J1 CM827+00 - Heater Control Fuse Box



Figure 15 - J1 CM826+20 - End Approach No Coverboard



Figure 18 - J1 CM828+00 Left Rail - One C-Bond Detached



Figure 19 - J1 CM834+50 - Heater Control Fuse Box



Figure 22 - J1 CM850+30 - Heater Control Fuse Box



Figure 20 - J1 CM842+70 - Heater Control Fuse Box



Figure 23 - J1 CM858+00 - Heater Control Fuse Box



Figure 21 - Heater Control Box - HC-J03-52-3 - still not repaired



Figure 24 - J1 CM865+60 - Heater Control Fuse Box



Figure 25 - J2 CM865+60 - Heater Control Fuse Box



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161117-WMATA-AD-1		
	2016	11	17				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST IT	Sub- Department	Production NCS
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
Inspection Location	Surge #10 – Rhode Island Avenue (B04) to Brookland – CUA (B05)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS	IT-GEN-OBS			
Inspection Units	1	1	1			
Inspection Subunits	1	1	1			
Defects (Number)	0	0	1			
Recommended Finding	No	No	No			
Remedial Action Required ¹	No	No	Yes			
Recommended Reinspection	No	No	No			

Activity Summaries

Inspection Activity #	1	Inspection Subject					RWP – Job Safety Briefing and Work Zone Set-up			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	Unit #6216 provided the briefing					Accompanied Inspector?	No	Out Brief Conducted	No	Time	0800 – 1130	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
	MSRPH													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X	X	X				
Line(s)	B-Line	Track Number	1 & 2	Chain Marker and/or Station(s)	From			To						
					B1 CM133+00 B2 CM210+00			B1 CM210+00 B2 CM117+00						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	Job Safety Briefing: • Unit #6216 provided the briefing.								Number of Defects		0			
									Recommended Finding?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.11.18 19:49:11 -05'00'	Date
Inspector in Charge – Name Ambur Daley	Inspection Team Chris DiFatta, Robert Maniuszko	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<ul style="list-style-type: none"> Mobile Command Center (MCC) is the RWIC for the area. MCC is located at Brentwood Yard. MCC is using radio channel OPS #12. MCC direct phone number is [REDACTED]. The entire area is Inaccessible track. There is no train movement within the work zone. There are three red tags in place for the area: <ul style="list-style-type: none"> 2016303504A 2016303506A 2016303507A The work area is protected by wooden ties chained to the rails along with shunts and lanterns. Each work area is delineated by an end of work mat. There are several hot spots in the area. Roadway Maintenance Machines are moving in the area and may move in both directions. Closest hospitals are Providence and Washington hospitals. <p>General Observations:</p> <ul style="list-style-type: none"> There were multiple work zones set up within the work area. The areas were under the control of a gang leader. There were red strobes and end of work mats in each area. Warning Strobe and Alarm Devices (WSAD) were observed in the work area. Several were checked for calibration. All were found to be in calibration. 	Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track General Observations					Activity Code	TRK	GEN	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	No	Out Brief Conducted	No	Time	0800 – 1130	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	
Line(s)	B-Line	Track Number	1 & 2	Chain Marker and/or Station(s)	From			To			
					B04			B05			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	<p>General Observations:</p> <ul style="list-style-type: none"> Extensive repairs have been made in the station platform area. Crews were observed pouring new grout pads to the east of Rhode Island Station on Track 2. New Grout pads have been poured throughout the Rhode Island Station area. New Fasteners and stud bolts are being installed. ETS boxes have been repaired or replaced at several locations. Rail joints are being eliminated. Third Rail expansion joint cables have been removed from the track side. They have been replaced on the field side of the third rail. Insulators are being replaced. Cover boards are being replaced. All defects that have not been repaired to date are spray painted orange. The B04 interlocking has been completely replaced. 						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommended Reinspection?		No		



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<ul style="list-style-type: none"> The ballast has been filled and shaped as necessary. No Exceptions were taken to the observed work area.		
Remedial Action	N/A		

Inspection Activity #	3	Inspection Subject	ETS Box Observations					Activity Code	IT	GEN	OBS						
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	No	Out Brief Conducted	No	Time	0800 – 1130	Outside Shift	No						
Related Reports				Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A						
	X							X	X	X							
Line(s)	B-Line	Track Number	1 & 2	Chain Marker and/or Station(s)	From				To								
					B04				B05								
Vehicles	Head Car Number		Number of Cars		Equipment	N/A											
	N/A		N/A														
Description	Concern: 1. At B2 CM186+15 the ETS box does not have a label or internal map. General Observations: <ul style="list-style-type: none"> Several ETS boxes have been repaired or replaced. Blue Lights were all in service. There were two new boxes at the portal area that are currently out of service. The boxes are tagged out of service. These installations appear to be a part of the surge activity. 							Number of Defects		1							
										Recommended Finding?		No					
										Remedial Action Required?		Yes					
										Recommended Reinspection?		No					
Remedial Action	WMATA must label and add the interior map in the ETS box identified above.																

Photos:



Figure 1 - New Grout Pads at B04

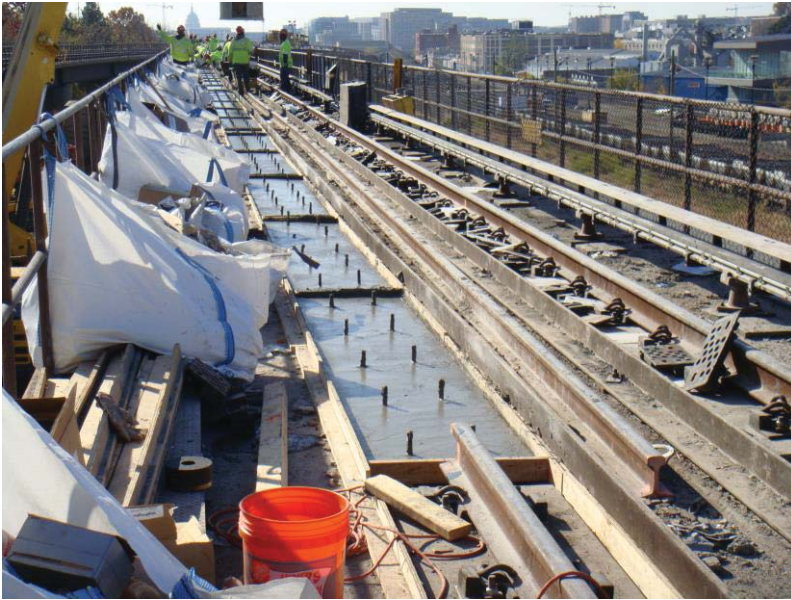


Figure 2 - New Grout Pads being poured east of B04



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161117-WMATA-WP-1		
	2016	11	17				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	OPMS	Sub- Department	
Rail Agency Department Contact Information	Name			Email		Office Phone	Mobile Phone
	[REDACTED]			[REDACTED]			
	[REDACTED]			[REDACTED]			
	[REDACTED]			[REDACTED]			
Inspection Location	Carmen Turner Facility, Landover, MD						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RWP-TNG-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Safety Stand Down Training for the Near Miss Roadway Worker Collision			Activity Code		RWP	TNG	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	1300-1400	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference				
	WMATA MSRPH		SOP #28											
	WMATA RWP Manual													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
					X						X			
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)			From		To					
							N/A		N/A					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	An FWSO inspector observed WMATA's Safety Stand Down Training on November 17, 2016 at the Carmen Turner Facility. The Safety Stand Down was for a "near miss," in which a roadway worker was nearly struck by a train on October 20, 2016.							Number of Defects		1				
								Recommended Finding?		Yes				
								Remedial Action Required?		Yes				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL		Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTA HQ, cn=WINSLOW L. POWELL Date: 2016.12.12 07:23:10 -05'00'		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Chad Broski			



	<p>The training was presented by an experienced instructor, and it consisted of a PowerPoint presentation, instructional handouts and an opportunity to ask questions. The instructor did a good job explaining the rules by providing real-world examples. This particular training class was one of many being offered to the approximately 6,000 WMATA employees required to attend. To accommodate the large number of employees and varying work schedules, the classes were running daily and hourly at multiple locations throughout the WMATA system for a couple of weeks. All employees were required to sign-in on a roster sheet to obtain credit for attending the class.</p> <p>Subjects that were discussed in training included the near miss Safety Alert (SA #16-10b); Permanent Order No. T-16-07, Rev. 1. Radio protocols were also reviewed (<i>MSRPH</i> 1.8; 1.69-1.88).</p> <p>FWSO found that Permanent Order No. T-16-07, Rev. 1 utilizes rules from the <i>MSRPH</i> and can present unclear instructions pertaining to the duties of a Watchman/Lookout vs. Roadway Flag Person (RFP). For example, MSRPH Operating Rule 3.164 combines the terminology of 'flagging protection' with a 'watchman/lookout signal.' It reads (in part), "when flagging protection is observed on the roadway or by communication from ROCC, the Rail Vehicle Operator shall: (a) reduce speed to not more than 10 MPH upon observing employees and be prepared to stop one car length away from the roadway flag person or watchman/lookout signal." The Watchman/Lookout sole duty, in accordance with the <i>WMATA RWP Manual</i>, is to warn roadway workers of approaching rail vehicles to allow them to clear to a place of safety 15 seconds prior to its arrival. This form of protection is predicated on obtaining the appropriate sight distance for the maximum allowable train speed. This rule can make it confusing to a Rail Vehicle Operator if they are expecting a signal from the Watchman/Lookout.</p> <p>FWSO also found that Permanent Order No. T-16-07, Rev. 1 provides a 'notice' that WMATA should consider as a 'Hot Spot' within the <i>WMATA RWP Manual</i>. The notice stated: "The following areas have a place of safety located between the centers of two (2) parallel tracks. Rail Vehicle Operators must reduce the speed of their train to 10 MPH until the entire train is past the workers and be prepared to stop within half their range of vision when observing Roadway Workers in this area. RWIC will ensure their work gang's safety by stopping train movement on the same track the rail vehicle is operating on if train moving on the opposite track is passing at the same time." The notice does not indicate which form of Roadway Worker Protection (RWP) would be utilized in these locations. If roadway workers are utilizing TAW Protection, a Watchman/Lookout's duty is not to stop or slow a train in sufficient time. In addition, the visibility or sight distance for the Rail Vehicle Operator or Watchman/Lookout may be compromised by a passing train. These specific locations - addressed in the Permanent Order, with a place of safety between the centers of two parallel tracks - should be considered an area which would require additional Roadway Worker Protection, such as Foul Time or ETO Protection, in the <i>WMATA Roadway Access Guide</i>. These locations are currently not identified in the <i>WMATA RWP Manual</i>.</p>	Recommended Reinspection?	No
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161118-WMATA-AD-1		
	2016	11	18				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	Rules Compliance & Safety Management Inspection (SMI) Required Actions Observation of Rail Traffic Controllers				Activity Code	ROCC	RC	OBS	
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1000 – 1600	Outside Shift	No	
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015		Related CAPS / Findings		Required Actions: (R-1-2-a); (R-1-6-a) & (R-1-6-b); (R-1-7-b); (R-1-8-a); (R-1-9-a); and Finding R-14						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MetroRail Safety Rules and Procedures Handbook		Section 1 – General Rules (Radio Usage and Operation): Rules 1.69 – 1.88		X		X		X		
	Permanent Order		NO. T-16-10								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A
				X							X
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)		From		To			
						N/A		N/A			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	An FWSO inspector conducted an observation of the Rail Traffic Controllers (RTC) at							Number of Defects		0	

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY		Date
Inspector in Charge – Name	Ambur Daley		Inspection Team
			Tamara Powell

Digitally signed by AMBUR I DALEY
DN: c=US, o=U.S. Government, ou=DOT
Headquarters, ou=FMCSAHQ, cn=AMBUR I
DALEY
Date: 2016.12.05 18:57:19 -05'00'



	<p>the Rail Operations Control Center (ROCC) at the OPS 1 console, Red Line. SafeTrack was in effect with 3rd rail power de-energized from New York Avenue to Fort Totten. The following observations were conducted:</p> <ul style="list-style-type: none">• The FWSO inspector observed the radio transmissions and performance of two RTCs. RTC #1, the Button Controller, has been employed at WMATA for 37 years, with 15 years in the ROCC. RTC #2, the Radio Controller, has been employed at WMATA for 14 years, with 3 months (qualified) as an RTC in the ROCC.• The FWSO inspector's observation and compliance check focused mainly on ROCC required actions and radio usage and operation (General Rules, #1.69 – 1.88 and Permanent Order T-16-10). The observation and compliance check was based on several findings from the SMI report, as well as rules from the <i>MetroRail Safety Rules and Procedures Handbook</i>. <p>Observations related to SMI report findings:</p> <ul style="list-style-type: none">• <i>R-1-2-a: "WMATA must complete and maintain required annual re-certifications for Rail Traffic Controllers."</i><ul style="list-style-type: none">○ Both RTCs were in compliance with this required action. RTC #1 has been recertified, but has not taken the RTC Bridge Training. RTC #2 was recently qualified as an RTC and had taken RTC Bridge Training.• <i>R-1-6-a: "WMATA must establish and enforce a proper protocol for language and terminology that is used over the radio – to include 100 percent word-for-word read-back for safety-related instructions and unusual train movements."</i><ul style="list-style-type: none">○ The FWSO inspector reviewed six crews on RWP protect list. Call-on period took place from 1004 to 1048 hours. All crews requested Train Approach Warning (TAW) level of protection.○ The RTCs ensured all requests were received properly through read-backs. Power and Track personnel each performed word-for-word confirmation of walking rights on the ROW.• <i>R-1-6-b: "As part of R-1-6-a, WMATA must establish an approach for communicating and managing all speed restrictions that require two-way communication between the ROCC and train operator and take full advantage of available electronic AIM system features."</i><ul style="list-style-type: none">○ Per policy, RTCs must conduct hourly radio broadcasts that include a full read out of RWP protections, time confirmation, rule of the day, cardinal rule 1.79, and all operational anomalies in place. RTCs must also broadcast RWP personnel protection announcements every twenty minutes.○ The required hourly broadcasts were observed on or near each hour, and the RWP personnel protection announcements were observed at 20 – 30 minute intervals. RTCs also maintained a written log of all personnel on ROW and recorded all call on/call off times.○ Per ROCC protocol and training, visual protection icons (blue man blocking device/blue line indications) were activated on the AIM system to indicate personnel presence on ROW. Note: This is still a visual aid only; it does not provide an electronic block to prevent train routing into a protected black/track.• <i>R-1-7-b: "WMATA must enhance RTC reference materials to direct internal operations at the ROCC, including...and internal ROCC administrative policies and procedures."</i><ul style="list-style-type: none">○ Per WMATA rules and policy (see Permanent Order T-16-10 and Operations Radio Communication Training), ROCC has implemented a scripted reminder regarding proper radio usage that must be broadcast hourly to all RTCs (see above).○ The FWSO inspector observed that all hourly announcements were made on or near the hour. The announcements contained slow speed locations (due to leaves), RWP protect list, elevator/escalator outages, and radio protocol (the "over" and	Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No



	<p>“out” requirements).</p> <ul style="list-style-type: none">○ The FWSO inspector observed inconsistent use of “over” and “out” in radio communication loops among RTCs. This was discussed in a meeting with the Director, and she will put monitoring tools in place to ensure compliance. (See FWSO report 20161122-WMATA-AD-3.) <ul style="list-style-type: none">• R-1-8-a: <i>“WMATA must establish a clear policy that prohibits distractions from the use of cell phones and other electronic devices in the ROCC.”</i><ul style="list-style-type: none">○ The FWSO inspector did not observe any RTC or other ROCC personnel in violation of said policy at any time during entire period of observation.• R-1-9-a: <i>“Until such time as electronic transfer records are implemented, WMATA must ensure that its RTC use paper-based logs with formal signatures.”</i><ul style="list-style-type: none">○ The FWSO inspector observed a shift transfer for one RTC, which occurred at 1300 hours. The RTC notified the relieving employee of all operating conditions and anomalies, as well as all RWP protects in effect during time of transfer. The relieving employee logged into the Advanced Information Management (AIM) system before taking over operations of duties.• R-14: <i>“While it has improved, the quality of WMATA’s radio system is still poor in some locations.”</i><ul style="list-style-type: none">○ The FWSO inspector observed poor radio communication on one occasion during time of monitoring. Train operators and personnel eventually received the radio transmission, but required a few read-backs until fully understood and acknowledged. <p>Additional observations:</p> <ul style="list-style-type: none">• The FWSO inspector observed the RTCs address a 7 series train with trouble code. RTC made attempts to troubleshoot issue with the Operator. He then turned to his colleague for assistance. The RTC later informed the FWSO inspector that he received an 8-hour course on the 7 series car 1.5 years ago and wanted a refresher course.• The FWSO inspector consulted the ROCC Director for clarification in a meeting with her on her findings from three comprehensive RTC shift observations. The Director stated that all RTCs have gone through training and were provided troubleshooting guides. Additionally, RTCs will soon be taking a refresher course on the 7 series. (See FWSO report 20161122-WMATA-AD-3.)• At approximately 1555 hours, a Power Department unit called on to request permission to enter ROW at B1-211 (outside of Brookland).• The RTC realized area of RWP protection was outside of the scope of his responsibilities. He immediately requested a landline call to inform the person that his request was within the SafeTrack designated area and directed him to call on to Mobile Command 14.		
Remedial Action	N/A		

**Inspection Form**

FOIA Exemption: All (b)(6)

Form FTA-IR-1United States Department of Transportation
Federal Transit Administration**Agency/Department Information**

Inspection Date	YYYY	MM	DD	Report Number	20161121-WMATA-AD-1		
	2016	11	21				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Yellow, Silver, Blue, Orange Lines						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-RI-OBS					
Inspection Units	1					
Inspection Subunits	4					
Defects (Number)	3					
Recommended Finding	No					
Remedial Action Required¹	Yes					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Train Operator Compliance Observation			Activity Code		OPS	RI	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	No	Out Brief Conducted	N/A	Time	0830 1430	Outside Shift		No
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	SOP													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	x		x					x	x	x				
Line(s)	Yellow, Silver, Blue, Orange Lines		Track Number	1 & 2		Chain Marker and/or Station(s)	From		To					
							Greenbelt L'Enfant Plaza Largo Town Center Metro Center		Gallery Place Largo Town Center Metro Center West Falls Church					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description										Number of Defects		3		

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.12.08 10:26:27 -05'00'		Date
Inspector in Charge - Name Ambur Daley	Inspection Team Alexander Nepa, Kevin McDonald		



	<p>The FWSO team observed operations for the following trains, and no exceptions were taken:</p> <ul style="list-style-type: none">Yellow line train number 308 between Greenbelt and Gallery Place.Silver line train number 601, lead car number 5166, between L'Enfant Plaza and Largo Town Center. <p>The FWSO team observed operations for the following trains, and found the following defects:</p> <ul style="list-style-type: none">Blue line train number 403, lead car number 7216, between Largo Town Center and Stadium-Armory.<ol style="list-style-type: none">At the portal between Largo Town Center Station and Morgan Blvd. Station, the operator failed to sound horn upon entering the portal.Orange line train number 901, lead car number 3118, between Stadium Armory and East Falls Church.<ol style="list-style-type: none">Operator failed to sound horn upon entering the portal between East Falls Church and Ballston-MU.At CM R2-344+00, operator failed to sound horn as train approached an ATC work crew on the tracks. The operator did stop to pick up the work crew and take them back to East Falls Church Station but failed to signal upon approaching them.	Recommended Finding?	No
		Remedial Action Required?	Yes
		Recommended Reinspection?	No
Remedial Action	WMATA must ensure that the train operators who failed to sound their horns are properly counseled on the SOP requirements.		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161121-WMATA-AD-2		
	2016	11	21				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	NO					

Activity Summaries

Inspection Activity #	1	Inspection Subject			Rules Compliance & Safety Management Inspection (SMI) Required Actions Observation of Rail Traffic Controllers			Activity Code		ROCC	RC	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A		Out Brief Conducted	Yes	Time	1500 – 2000	Outside Shift	No
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015			Related CAPS / Findings			Required Actions: (R-1-2-a); (R-1-6-a) & (R-1-6-b); (R-1-7-b); (R-1-8-a); (R-1-9-a); and Finding R-14					
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook		Section 1 – General Rules (Radio Usage and Operation): Rules 1.69 – 1.88		X		X		X			
	Permanent Order		NO. T-16-10									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A	
				X							X	
Line(s)	N/A		Track Number	N/A		Chain Marker and/or Station(s)		From		To		
								N/A		N/A		
Vehicles	Head Car Number		Number of Cars		Equipment		N/A					
	N/A		N/A									
Description									Number of Defects		0	

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.12.05 18:43:30 -05'00'	Date
Inspector in Charge – Name	Ambur Daley			
Inspection Team	Tamara Powell			



	<p>An FWSO inspector conducted an observation of the Rail Traffic Controllers (RTC) at the Rail Operations Control Center (ROCC) at the OPS 3 console, on the Yellow, Green, and partial Blue lines. The following observations were conducted:</p> <ul style="list-style-type: none">• The FWSO inspector observed the radio transmissions and performance of two RTCs. RTC #1, the Button Controller, is an outside hire with previous transit experience who has been employed at WMATA in the ROCC for 5.5 years. RTC #2, the Radio Controller, is also an outside hire, and has served over 3 years at WMATA as an RTC. Lastly, there was a third RTC that relieved RTC #1, who has been employed at WMATA for 10 years, with 4 years served at the ROCC.• The FWSO inspector's observation and compliance check focused mainly on ROCC required actions and radio usage and operation (General Rules, #1.69 – 1.88 and Permanent Order T-16-10). The observation and compliance check was based on several findings from the SMI report, as well as rules from the <i>MetroRail Safety Rules and Procedures Handbook</i>. <p>Observations related to SMI report findings:</p> <ul style="list-style-type: none">• <i>R-1-2-a: "WMATA must complete and maintain required annual recertifications for Rail Traffic Controllers."</i><ul style="list-style-type: none">○ Both RTCs were in compliance with this required action. RTC #1 has been recertified, and is currently enrolled in the RTC Bridge Training course. RTC #2 has very recently completed Bridge Training, and was jointly recertified during the training course.• <i>R-1-6-a: "WMATA must establish and enforce a proper protocol for language and terminology that is used over the radio – to include 100 percent word-for-word read-back for safety-related instructions and unusual train movements."</i><ul style="list-style-type: none">○ During the afternoon rush hour, the FWSO inspector observed RTC #2 during each radio broadcast, all of which were in compliance with this directive. RTC ensured each unit or operator repeated back each instruction, clearance, or operating instruction with 100 percent word-for-word read back, as required. There were no exceptions taken.○ Starting at 1909 hours, units began calling on to the ROW to request RWP protection. The RTC ensured all requests were received properly through read-backs.○ FWSO inspector observed one instance where a Power department unit (who was reportedly a new hire to the agency) attempted to call on with an incomplete RWP protect request. He did not clearly define limits of requested clearance and protect and was not in compliance with 100 percent read-back. The RTC promptly requested a landline call and reinstructed personnel on proper protocols, by requesting the chain marker location for the power room for which access was requested. When the RTC was satisfied the unit had met all requirements, he granted access to the ROW. Power personnel then performed a word-for-word confirmation of walking rights on the ROW, and confirmed identification of all hot spots.○ The RTC closed by acknowledging all radio check requests as, "That is a good copy," and turned over or closed out each transmission with "over" and "out" until conclusion of the communication loop.• <i>R-1-6-b: "As part of R-1-6-a, WMATA must establish an approach for communicating and managing all speed restrictions that require two-way communication between the ROCC and train operator and take full advantage of available electronic AIM system features."</i><ul style="list-style-type: none">○ Per policy, RTCs must conduct hourly radio broadcasts that include a full read out of ROW protections (if applicable), time confirmation, rule of the day, cardinal rule 1.79, and all operational anomalies in place. RTCs must also broadcast RWP personnel protection announcements every twenty minutes. The required hourly broadcasts were observed on or near each	Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No



	<p>hour, and the ROW personnel protection announcements were observed at 20 – 30 minute intervals. RTCs also maintained a written log of all personnel on ROW and recorded all call on/call off times.</p> <ul style="list-style-type: none">○ Per ROCC protocols and training, visual protection icons (blue man blocking device/blue line indications) were activated on the AIM system to indicate personnel presence on ROW. Note: This is still a visual aid only; it does not provide an electronic block to prevent train routing in/onto a protected block/track. <ul style="list-style-type: none">• R-1-7-b: <i>“WMATA must enhance RTC reference materials to direct internal operations at the ROCC, including...and internal ROCC administrative policies and procedures.”</i><ul style="list-style-type: none">○ FWSO inspector made a random visual notation of reference guides located at the OPS 3 console. Reference materials observed include the following: Standard Operating Procedures (SOP) manual, Troubleshooting Guide/Procedure Checklist manual, RWP manual, Power Reconfiguration manual, OPS 3 resource binder, and an hourly broadcast memorandum (scripted reminder).○ Per WMATA rules and policy (see Permanent Order T-16-10 and Operations Radio Communication Training), the ROCC has implemented a scripted reminder regarding proper radio usage that must be broadcast hourly to all personnel (see above).○ FWSO inspector observed that all hourly announcements were made on or near the hour. The announcements contained slow speed locations (there were several locations listed on the lines), RWP protect list, elevator/escalator outages, and radio protocol (the “over” and “out” requirements), and any other pertinent operating anomalies.• R-1-8-a: <i>“WMATA must establish a clear policy that prohibits distractions from the use of cell phones and other electronic devices in the ROCC.”</i><ul style="list-style-type: none">○ The FWSO inspector did not observe any RTC or other ROCC personnel in violation of said policy at any time during entire period of observation.• R-1-9-a: <i>“Until such time as electronic transfer records are implemented, WMATA must ensure that its RTC use paper-based logs with formal signatures.”</i><ul style="list-style-type: none">○ There was one shift transfer during period of observation at 1726 hours. The relieving employee took over button controller duties.○ The RTC notified the relieving employee of all operating conditions and anomalies in effect during time of transfer. The relieving employee logged into the Advanced Information Management (AIM) system before taking over operations of duties.• R-14: <i>“While it has improved, the quality of WMATA’s radio system is still poor in some locations.”</i><ul style="list-style-type: none">○ The FWSO inspector observed very poor radio communication sporadically during entire time of monitoring.○ All three OPS frequencies were bleeding over into each other throughout the rush hour.○ Train operators and personnel eventually received the radio transmission, but required a few read-backs until fully understood and acknowledged. RTC kept a written note of all units and train operators that were able to identify, but unable to transmit message. The RTC took his time addressing each transmission until the list of pending transmissions was exhausted. <p>Additional observations:</p> <ul style="list-style-type: none">• The FWSO inspector observed severe service delays during the entire shift on all lines operating in OPS 3 jurisdiction. The slow speed areas served as a major contribution to this operating anomaly. Causes for the slow speed areas were as follows: hot spots, defective ties, and rail		
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	<p>defects.</p> <ul style="list-style-type: none">• There were slow speeds noted in six areas, which exacerbated the poor radio issue because the RTC was required to re-transmit to several trains issuing clearances, answering inquiries regarding loss of speed codes and addressing operator delay concerns. For a period of approximately ten minutes, field personnel transmissions were inadvertently stepping on and cutting off the RTC, as well as each other.• Another general issue regarding radio protocols were instances of poor radio etiquette displayed by some field personnel. The FWSO inspector observed unnecessary transmissions take place, such as mocking the RTC or other field personnel. The RTC immediately addressed the situation by broadcasting a general and stern advisement to personnel to “keep it professional,” further stating that “everyone needs to make it home safely”. The ROCC Director was present during one instance and immediately investigated incident, asking if the person could be identified.		
Remedial Action	N/A		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161122-WMATA-AD-1		
	2016	11	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST -Operations	Sub- Department	Production - SAFE
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Yellow and Red lines, Rhode Island platform						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-RI-OBS	TRK-RWP-OBS				
Inspection Units	1	1				
Inspection Subunits	3	3				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Train Ride Observation			Activity Code		OPS	RI	OBS
Job Briefing Employee Name/Title						Accompanied Inspector?	No	Out Brief Conducted	N/A	Time	1000 1400	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	SOP													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	x		x					x	x	x				
Line(s)	Yellow line	Track Number	1 & 2	Chain Marker and/or Station(s)	From			To						
					Greenbelt Fort Totten King St – Old Town Gallery Place			Fort Totten King St – Old Town Gallery Place Rhode Island station						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	<ul style="list-style-type: none"> FWSO inspectors boarded the Yellow line to King St. for train ride 								Number of Defects		0			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature			Digitally signed by AMBURI DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBURI DALEY Date: 2016.12.05 19:55:47 -05'00'	Date
Inspector in Charge – Name Ambur Daley	Inspection Team Alexander Nepa, Kevin McDonald			



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<ul style="list-style-type: none"> observations. No exceptions. FWSO inspectors then boarded train 303 to Gallery Place. No exceptions. 	Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	RWP Inspection of Surge Area				Activity Code	TRK	RWP	OBS						
Job Briefing Employee Name/Title	TRST 6101		Accompanied Inspector?	No	Out Brief Conducted	Yes	Time	1000 1400	Outside Shift	No						
Related Reports	Related CAPS / Findings															
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard		Other / Title		Checklist Reference							
	SOP															
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
	x		x							x						
Line(s)	Red Line	Track Number	1 & 2	Chain Marker and/or Station(s)	From			To								
					Rhode Island Avenue			Fort Totton								
Vehicles	Head Car Number		Number of Cars		Equipment	N/A										
	N/A		N/A													
Description	<ul style="list-style-type: none"> FWSO inspectors boarded the Red line at Gallery Place and took the bus bridge to Rhode Island Station and observed Surge work from the platform. No exceptions were taken while observing work from the platform. The job briefing was provided by TRST Unit #6101 at the SafeTrack Surge #10 entrance. The briefing was comprehensive. It included WMATA level 1 ID check; safety rule review (4.59); red tag outage numbers; MCC telephone number; type of protection (IT); and locations of barriers, mats, hospital location, and potential hazards. No exceptions were taken with the job safety briefing. 						Number of Defects		0							
							Recommended Finding?		No							
							Remedial Action Required?		No							
							Recommended Reinspection?		No							
Remedial Action	N/A															



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161122-WMATA-AD-2		
	2016	11	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	OPMS	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
Inspection Location	Carmen Turner Facility, Landover, MD						


Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RWP-TNG-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					RWP Level 1 and 4 Training Observation			Activity Code		RWP	TNG	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	0800-1600	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	WMATA RWP Manual													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
					X							X		
Line(s)	N/A		Track Number	N/A	Chain Marker and/or Station(s)		From		To					
							N/A		N/A					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	An FWSO inspector observed WMATA's Roadway Worker Protection (RWP) Level 1 and Level 4 Training at the Carmen Turner Facility on November 7, 2016 and November 14 – 17, 2016. The courses were taught by experienced instructors and consisted of classroom lectures and practical simulations. The instructors had										Number of Defects		1	
											Recommended Finding?		Yes	
											Remedial Action Required?		Yes	
											Recommended Reinspection?		Yes	

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	 Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.12.01 11:43:48 -05'00'		Date
Inspector in Charge - Name	Ambur Daley		
Inspection Team	Chad Broski		



	<p>command of the classroom, materials, and the ability to convey their knowledge and experience to the students. They also encouraged students to actively participate in the program.</p> <p>RWP Level 1 training is a one-day (8 hour) course that is provided to all employees who require general access to the roadway for any reason. This is the minimum level of proficiency to allow individuals to enter the roadway accompanied by a Roadway Worker in Charge (RWIC). RWP Level 4 training is typically a five-day course, and it is provided to all employees who are responsible for providing RWP in the capacity of a RWIC.</p> <p>The <i>WMATA Roadway Worker Protection Manual</i> is one of the main reference materials used in RWP Level 1 and Level 4 training. However, FWSO found some conflicting or confusing points in the <i>WMATA Roadway Worker Protection Manual</i>, dated June 1, 2014, with regard to Key Personnel, Roadway Worker Protection, and Hot Spots and No Clearance Zones.</p> <p>1. Key Personnel</p> <p>a) The Watchman/Lookout duty, as defined in 2.1 and 2.2, conflicts with the protocols described in 2.16 and 2.23-2.31. FWSO believes that the Watchman/Lookout has been confused with the Roadway Flag Person (RFP) in sections 2.16 and 2.23-2.31. The following excerpts show the discrepancies within the manual:</p> <p>2.1. Employees assigned as Watchman/Lookout shall not perform any other duties while in this capacity.</p> <p>2.2. A Watchman/Lookout's sole duty is to warn the personnel of approaching rail vehicles.</p> <p>...</p> <p>2.16. Watchman/Lookouts shall ensure that all personnel are clear of the dynamic outline of any train or rail equipment BEFORE giving a proceed signal.</p> <p>2.23. Watchman/Lookouts shall signal the train or rail equipment only when authorized by the RWIC and it is safe to proceed.</p> <p>2.24. Watchman/Lookouts shall face the oncoming traffic to be flagged if it is safe to do so.</p> <p>2.25. Watchman/Lookouts shall, if authorized by the RWIC and it is safe to do so, give the proceed signal by moving their arm straight up and down in a vertical motion.</p> <p>2.26. Watchman/Lookouts shall NEVER give a proceed signal unless absolutely sure all personnel are in a place of safety and the tracks are clear for travel through the working limits.</p> <p>2.27. Watchman/Lookouts shall NEVER give a proceed signal to oncoming traffic on an adjacent track when the adjacent track is a separate working zone.</p> <p>2.28. A single Watchman/Lookout shall give the proceed signal to trains or rail equipment on the adjacent track only if it is safe to do so.</p> <p>2.29. A Watchman/Lookout needing to signal trains or rail equipment to proceed shall face oncoming traffic to be flagged once the RWIC authorizes rail vehicle movement through the work zone and shall give the proceed signal by moving their arm straight up and down in a vertical motion. No proceed signal shall be given if the tracks are not clear for traffic.</p> <p>2.30. A Watchman/Lookout needing to signal trains or rail equipment to STOP shall face the oncoming traffic to be flagged and shall stop a train or rail vehicle by waving their arm back and forth horizontal to the tracks. The Watchman/Lookout shall continue this action until the train or rail equipment comes to a complete stop.</p> <p>2.31. A Watchman/Lookout needing to signal trains or rail equipment to Slow Down shall slow down the train or rail</p>		
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	<p>vehicle, on either track, by extending their arm horizontal to the track. The arm must be fully extended with the hand clutched into a fist.</p> <p>b) The rules pertaining to the Roadway Worker-In-Charge (RWIC) further compound the confusion between the duties of a Watchman/Lookout vs. the Roadway Flag Person by stating the following:</p> <p>1.55. In a mobile work gang, the RWIC shall designate one employee as Watchman/Lookout to signal approaching vehicles on the occupied track to provide work zone protection, and assign a RWP Qualified person to acknowledge trains on the adjacent track.</p> <p>1.56. The RWIC of a mobile work gang shall maintain the ability to stop trains or rail equipment moving through the working limits by:</p> <p>1.56.1. Installing a shunt and lanterns, or</p> <p>1.56.2. Using a Watchman/Lookout doubling as a Roadway Flag Person (RFP), or</p> <p>1.56.3. Placing prohibit exits on interlocking switches (ONLY qualified Automatic Train Control (ATC) personnel with the permission of ROCC can take Local Control of interlocking's).</p> <p>1.56.4. The RWIC of a mobile work gang, not using shunting protection, must use a RFP.</p> <p>1.56.5. The RWIC of a mobile work gang shall maintain the ability to communicate with ROCC at all times.</p> <p>1.57. The RWIC of a mobile work gang, not using shunting protection, must use a Watchman/Lookout doubling as a RFP.</p> <p>2. Roadway Worker Protection</p> <p>a) Train Approach Warning (TAW) Protection is the use of Watchman/Lookouts. Under TAW Protection, the Watchman/Lookout's sole duty is to detect the approach of train and rail equipment and provide ample warning to the roadway workers to clear to a place of safety before the arrival of any rail vehicle. Similar to what we found in the Key Personnel section of the RWP Manual, TAW rules and procedures 4.1 and 4.2, which define the Watchman/Lookout duties under TAW, conflicts with the duties described in 4.16 and 4.23-4.31.</p> <p>b) Exclusive Track Occupancy (ETO) Protection is the authority issued by ROCC to the RWIC to control a specific area of the roadway within specified working limits, whereby the exclusive authority to permit train and rail equipment traffic through any given work limits rests solely with the RWIC. The rules and procedures for ETO Protection, as outlined in the RWP manual, are vastly different than TAW Protection.</p> <p>c) According to the RWP manual, one method of establishing ETO Protection is to place a Roadway Flag Person at each entrance to the track within working limits with the capability to STOP or proceed trains through the work limits at the direction of the RWIC. The RWP manual outlines the means that a Roadway Flag Person would use to stop a train, which is not included in the rules for Watchman/Lookouts. The current WMATA RWP rules merge the responsibilities of the Watchman/Lookout with the Roadway Flag Person.</p> <p>3. Hot Spots and No Clearance Zones</p> <p>a) Hot Spots are defined in the RWP Manual (in part) as physical locations on the railroad where additional RWP is required due to limited visibility (i.e. curves, obstructions, etc.), heavy noise, and/or close clearance.</p> <p>b) Hot Spots rule 1.5 requires the RWIC to invoke ETO Protection when there are "visual impediments or blind spots." This rule doesn't provide an option other than ETO</p>		
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	<p>Protection for visual impediments or blind spots. Additionally, Hot Spots rule 1.4 refers the RWIC to the Roadway Access Guide to determine any and all Hot Spots contained within their working limits. However, the Roadway Access Guide does not use the term “Hot Spots”. Instead, it shows three levels of minimum protection, and the “Danger Areas” (i.e. blind spots) make no reference to invoke ETO Protection. Instead, it gives the RWIC the option to use TAW Protection or Roadway Flag Person, which contradicts Hot Spots rule 1.5 in which ETO is the only option provided.</p> <p>c) Rule 1.79 in the Roadway Worker-In-Charge section further creates ambiguity by stating, “The RWIC shall request ROCC to communicate their location to all approaching trains and rail equipment when traversing through visual impediments or blind spots and the RWIC shall request ETO Protection if the work gang stops in areas where there are visual impediments or blind spots.”</p> <p>The ambiguous nature of the rules pertaining to the duties of the Watchman/Lookout vs. Roadway Flag Person and the rules governing TAW Protection vs. ETO Protection—especially for Hot Spots—can be misleading and left to interpretation. This lack of clarity may reduce the effectiveness of the Good Faith Challenge policy, create confusion between rail vehicle operators and roadway workers, and ultimately lead to complacency.</p>		
Remedial Action	WMATA should ensure that the rules pertaining to the duties of the Watchman/Lookout vs. Roadway Flag Person and the rules governing TAW Protection vs. ETO Protection—especially for Hot Spots—are clarified in the 2016 revision to the Roadway Worker Protection Manual.		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161122-WMATA-AD-3		
	2016	11	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-MTG					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject			Rules Compliance & Safety Management Inspection (SMI) Required Actions Observation of Rail Traffic Controllers			Activity Code		ROCC	RC	MTG
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1500 – 1700	Outside Shift	No	
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015			Related CAPS / Findings		Required Actions: R-1 through R-14						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook;		Section 1 – General Rules (Radio Usage and Operation):		X		X		X			
	20161114-WMATA-AD-1;		Rules 1.69 – 1.88									
	20161118-WMATA-AD-1;											
20161121-WMATA-AD-2												
Permanent Order		NO. T-16-10										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A	
				X							X	
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)		From			To			
						N/A			N/A			
Vehicles	Head Car Number		Number of Cars		Equipment		N/A					

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY		Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2016.12.05 18:12:33 -05'00'	Date
Inspector in Charge – Name	Ambur Daley		Inspection Team	Tamara Powell



	N/A	N/A		
Description	<p>The FWSO Inspector met with the Director of the ROCC to review salient items from three recent rules compliance observations she conducted at all three Ops stations in the ROCC. The observations focused on controller and ROCC staff rules compliance with MetroRail Safety Rules and Procedures Handbook (MSRPH), recent permanent orders regarding radio protocols, and the Safety Management Inspection (SMI) required actions. The FWSO inspector discussed a few issues in regard to training, radio protocol and usage, troubleshooting, and general practice.</p> <p>General overview of discussion:</p> <ul style="list-style-type: none">• All staff were observed in compliance with the cell phone ban policy. There were no violations observed at any time.• Overall there were no noise-related disruptions at the ROCC.• Radio reception was barely adequate, most notably during observation on 11/21/16. The Director stated the radio communication team is working on the issue, and the radio system replacement will be complete in 2017. The ROCC Director reported that all ROCC staff and personnel are in compliance with the agency's recertification requirements. There are no RTCs out of compliance with this mandate.• Additionally, the ROCC had just completed its 3rd course cycle for RTC Bridge Training. Generally, there are four RTCs scheduled per class. They are currently compiling an overall schedule to train the entire staff. All RTCs are currently RWP Level IV certified.• The FWSO inspector noted that during one shift observation, she observed RTCs experience difficulty in troubleshooting a 7K series train with an operational defect. In response, the Director said that the ROCC is currently finalizing a 2-day training course of the 7K train series. The program is still in draft and will be rolled out at the ROCC by the beginning of 2017. The FWSO inspector was able to view the draft.• FWSO inspector informed ROCC Director of an observation regarding radio usage and protocol. (See FWSO inspection report 20161118-WMATA-AD-1.) The FWSO inspector observed inconsistent use of "over" and "out" in radio communication loops among RTCs, which is required by Permanent Order T-16-10. The FWSO inspector noted this was observed generally with the exception of one RTC. The Director of ROCC and the FWSO inspector acknowledged challenges in changing behavior and past practices. The Director will monitor for policy compliance moving forward.	Number of Defects	0	
		Recommended Finding?	No	
		Remedial Action Required?	No	
		Recommended Reinspection?	No	
Remedial Action	N/A			



United States Department of Transportation
Federal Transit Administration

FOIA Exemption: All (b)(6)

Inspection Form

Form FTA-IR-1

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161122-WMATA-WP-1		
	2016	11	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	RAIL
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
Inspection Location	Shady Grove Yard						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-GEN-MTG					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					General Meeting with Red Line Supervisor			Activity Code		OPS	GEN	MTG
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0900 – 1300	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
		X						X						
Line(s)	A-Line	Track Number	Yd. Tracks		Chain Marker and/or Station(s)		From			To				
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	General Observations: <ul style="list-style-type: none">Superintendent was observed distributing Safety Bulletins and RTRA notices to all employees.Superintendent requires signatures from each employee on completed forms and bulletins to demonstrate an understanding of the material.FWSO inspector reviewed Rail Supervisor Daily Activity Reports (RSDAR) from random line supervisors. The new system appears to be working as intended.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL		
Inspector in Charge – Name		Inspection Team
Winslow Powell		Robert Maniuszko



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	<ul style="list-style-type: none">FWSO and Superintendent walked through the yard. Rail Roadway Maintenance Machines (RMM) were observed to be chocked as required.The yard in the area of vehicle lay-up was clear and free of debris. <p>No exceptions were taken to this yard, and the practices employed by this Superintendent appear to meet or exceed the requirements of RTRA.</p>		
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161129-WMATA-CF-1		
	2016	11	29				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	TKIN
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
Inspection Location	A Line (Red) from A-01 (Metro Center) to A-15 (Shady Grove) - #2 track.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RI-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	5					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track Ultrasonic (UT) Testing			Activity Code		TRK	RI	OBS
Job Briefing Employee Name/Title	[REDACTED] /RWIC Level 4					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	2130-0430	Outside Shift	Yes	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	TRST 1000													
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X	X					
Line(s)	A	Track Number	2	Chain Marker and/or Station(s)			From		To					
							A01		A15					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	FWSO accompanied the TGV/UT inspection team during its Track Ultrasonic (UT) testing on the A Line (Red) from A-01 (Metro Center) to A-15 (Shady Grove) - #2 track.							Number of Defects		5				
								Recommended Finding?		Yes				
								Remedial Action Required?		Yes				

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Inspector in Charge - Signature		CORWYN DALE FOSTER		Digitally signed by CORWYN DALE FOSTER DN: c=US, o=U.S. Government, ou=DOT FRAAtlantaGA, ou=FRA FRAAtlantaGA, cn=CORWYN DALE FOSTER Date: 2016.12.09 12:12:27 -05'00'		Date
Inspector in Charge - Name Corwyn Foster		Inspection Team Corwyn Foster, Al Nepa, Kevin McDonald				



	<p>The TGV can perform both track geometry and UT testing at the same time; and both geometry and UT testing was conducted during this survey.</p> <p>There were three UT and two TGV exceptions found during this inspection.</p> <ul style="list-style-type: none">• A2 233 +69 Bolt Hole Crack on the right rail. (UT)• A2 400 + 30 Defective Plant Weld on the left rail. (UT)• A2 916 + 98 Detail Fracture 35% on the left rail. (UT)• A2 712-+71 Narrow gage. The gage measured 55.85 inches. The narrow gage was caused by positive cant of the both the left and right rails. The cant positive cant is a direct result of deteriorating crossties. (TGV)• A2 798 + 55 Narrow gage. The gage measured 55.85 inches. The narrow gage was caused by positive cant of the both the left and right rails. The cant positive cant is a direct result of deteriorating crossties. (TGV)	Recommended Reinspection?	Yes
Remedial Action	<ol style="list-style-type: none">1. WMATA must repair Bolt Hole Crack on the right rail at A2 233 +69.2. WMATA must repair Defective Plant Weld on the left rail at A2 400 + 30.3. WMATA must repair Detail Fracture 35% on the left rail at A2 916 + 98.4. WMATA must repair narrow gauge at A2 712-+71.5. WMATA must repair narrow gauge at A2 798 + 55.		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161129-WMATA-WP-1		
	2016	11	29				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
Inspection Location	D and G Junction (D98) to Potomac Ave. (D07)						


Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	2				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Job Safety Briefing			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	TRST 5					Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1500	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	RWPM													
	MSRPH													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X								X	X				
Line(s)	D	Track Number	1	Chain Marker and/or Station(s)			From		To					
							D and G Junction (D98)		Potomac Ave. (D07)					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	TRST 5 provided a comprehensive job safety briefing to the work gang prior to accessing the right of way (ROW) at the D and G Junction. The briefing outlined the work limits of the inspection, the protection that would be used (Train Approach Warning with Foul Time in red areas), the required personal protection equipment (PPE), a review of hotspots, and a review of hazards which would be encountered on the ROW. TRST 5 inspected all employees and FWSO members to ensure all							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date	
 <small>Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2016.12.06 12:42:33 -05'00'</small>			
Inspector in Charge - Name	Inspection Team		
Winslow Powell	Chad Broski, Mike Vitale		

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	required PPE was in place and that all RWP training was current. No exceptions were taken with the briefing.									
Remedial Action	N/A									

Inspection Activity #	2	Inspection Subject	Remedial Action Verification					Activity Code	TRK	WI	PI
Job Briefing Employee Name/Title	TRST 5		Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1500	Outside Shift	No	
Related Reports	N/A		Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	RWPM										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X								X	X	
Line(s)	D	Track Number	1	Chain Marker and/or Station(s)	From			To			
					D and G Junction (D98)			Potomac Ave. (D07)			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	<p>FWSO performed a track inspection from the D and G junction (D98) to the Potomac Ave. Station to follow up on open remedial actions from the previous SafeTrack surge.</p> <ul style="list-style-type: none">FWSO closed remedial action 752, requiring WMATA to secure safety catwalk panels on the aerial structure at the D and G junction.FWSO also closed remedial action 822, which required WMATA to mitigate numerous stud bolts that are loose/exceeding the 3" height from the base between D1 CM321+80 and D1 CM212+00.FWSO was not able to close remedial action 795, related to improperly installed stud bolts in sporadic locations between D1 202+00 and D1 206+00. While this condition does not meet WMATA's requirements for speed restriction, the quality of work in this area should be examined and corrections should be made.Additionally, FWSO was not able to close remedial action 793, which required WMATA to remove rail from the ROW from D1 CM 221+00 to D1 CM 191+00. FWSO verified that WMATA has not removed the rail from the ROW, and it is still in place in this location. <p>Additional observations:</p> <ul style="list-style-type: none">While following up on remedial action 822, FWSO noted several SW-31 fasteners which will need to be replaced from D1 268+00 to the end of the aerial structure.At D1 189+00, FWSO noted two instances of a bundle of cable secured to the pull bar for the safety catwalk. This obstructs a track walker's ability to safely clear the ROW.Finally, the work group reported a pull apart in the third rail just outside the Potomac Ave. station platform on track 1. TRST 5 notified the Rail Operations Control Center (ROCC) and instituted a 15 mile per hour speed restriction.						Number of Defects		2		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
Remedial Action	<ol style="list-style-type: none">WMATA must assess and replace defective SW-31 fasteners from D1 268+00 to the end of the aerial structure.WMATA must relocate the bundle of cables from the safety catwalk at D1 189+00.										



Photos:



Bundle of cables stored on safety walk at D1 198+00



Rail Break noted just outside the Potomac Ave. station



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161129-WMATA-WP-2		
	2016	11	29				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 11, K-Line – Track #1 – East Falls Church (EFC) to West Falls Church (WFC)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-GEN-OBS	TRK-RWP-OBS				
Inspection Units	1	1				
Inspection Subunits	1	2				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track General Observations			Activity Code		TRK	GEN	OBS
Job Briefing Employee Name/Title	Track Unit #6014 provided the briefing Mobile Command Center (MCC) was the RWIC SAFE Unit #203 provided the Escort					Accompanied Inspector?	No	Out Brief Conducted	No	Time	1330 – 1600	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		4.159											
	TRST 1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X						
Line(s)	K-Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							K1 CM405+78		K1 CM443+00					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	Concern: When FWSO inspector arrived on the platform, four (4) compressed gas cylinders							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				

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Inspector in Charge - Signature WINSLOW L. POWELL		Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2016.12.06 13:25:46 -05'00'	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Robert Maniuszko		

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Version date: 8/26/16



United States Department of Transportation
Federal Transit Administration

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	<p>were observed standing on the platform without being properly secured. Two (2) of the cylinders were Oxygen and two (2) were Acetylene. These cylinders were located next to each other without proper separation. (See photo below.) WMATA MSRP Rule 4.159 states, "Oxygen/fuel gas and liquids cylinders shall be positioned and secured so as to prevent their being struck by moving equipment, or coming in contact with the third rail or other electrical circuits." In addition, OSHA 1910.253 (4)(iii) states, "Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet..."</p> <p>SAFE unit #203 immediately notified the Mobile Command Center and the gang leader was notified. The gang leader was aware of the requirement to separate the cylinders but had been out on the roadway and did not witness the cylinders being delivered. He immediately corrected the condition and secured the cylinders.</p> <p>General Observations:</p> <ul style="list-style-type: none"> • WMATA was observed replacing crossties, fasteners, and tie plates. • The workers were also replacing the Intrusion Detection and Warning (IDW) boxes. • G.W. Peoples was observed replacing third rail cover boards as well as re-gaging the rails. • All of the rail stringers scheduled for replacement on track #1 were in place at the time of the visit. WMATA plans to de-stress the rails Thursday, December 1, 2016. • The FWSO inspector noted a number of "non-conforming" crossties in the work zone. WMATA has not provided documentation that these ties belong on mainline track. Per the Cross Tie Comparison Data standard, "Switch tie" lengths are 7" x 9" by 8' 6". The observed crossties had a width of 7 1/2" or less. See photo below. Four specific locations are as follows: <ul style="list-style-type: none"> ○ K1 CM417+40 – 7 1/2" ○ K1 CM433+10 – 7 1/2" ○ K1 CM433+20 – 7" ○ K1 CM434+45 – 7 1/2" 	<p>Recommended Reinspection?</p>	<p>No</p>
<p>Remedial Action</p>	<p>N/A</p>		

<p>Inspection Activity #</p>	<p>2</p>	<p>Inspection Subject</p>	<p>RWP General Observations</p>					<p>Activity Code</p>		<p>TRK</p>	<p>RWP</p>	<p>OBS</p>
<p>Job Briefing Employee Name/Title</p>	<p>Track Unit #6014 provided the briefing Mobile Command Center (MCC) was the RWIC SAFE Unit #203 provided the Escort</p>			<p>Accompanied Inspector?</p>	<p>No</p>	<p>Out Brief Conducted</p>	<p>No</p>	<p>Time</p>	<p>1330 – 1600</p>	<p>Outside Shift</p>	<p>No</p>	
<p>Related Reports</p>				<p>Related CAPS / Findings</p>								
<p>Related Rules, SOPs, Standards, or Other</p>	<p>Ref</p>	<p>Rule or SOP</p>			<p>Standard</p>		<p>Other / Title</p>		<p>Checklist Reference</p>			
	<p>MSRP</p>	<p>4.90</p>										
	<p>RWPM</p>											
<p>Inspection Location</p>	<p>Main Track</p>	<p>Yard</p>	<p>Station</p>	<p>OCC</p>	<p>RTA Facility</p>	<p>FTA Office</p>	<p>Track Type</p>	<p>At-grade</p>	<p>Tunnel</p>	<p>Elevated</p>	<p>N/A</p>	
	<p>X</p>							<p>X</p>				
<p>Line(s)</p>	<p>K-Line</p>	<p>Track Number</p>	<p>1</p>	<p>Chain Marker and/or Station(s)</p>		<p>From</p>			<p>To</p>			
						<p>K1 CM405+78</p>			<p>K1 CM443+00</p>			
<p>Vehicles</p>	<p>Head Car Number</p>		<p>Number of Cars</p>		<p>Equipment</p>	<p>N/A</p>						
	<p>N/A</p>		<p>N/A</p>									
<p>Description</p>	<p>Concerns:</p> <ul style="list-style-type: none"> • The shunt strap at the east end of the work area was not connected. (See photo below.) SAFE Unit #203 notified Mobile Command and the shunt strap was re-applied as required. 					<p>Number of Defects</p>			<p>0</p>			
						<p>Recommended Finding?</p>			<p>No</p>			
						<p>Remedial Action Required?</p>			<p>No</p>			
						<p>Recommended Re-inspection?</p>			<p>No</p>			



	<p>General Observations:</p> <p>Unit #6014 provided the safety briefing, and the following information was conveyed:</p> <ul style="list-style-type: none">• Safety Rule was 4.90 – A supervisor shall be notified immediately of any missing or defective safety guards and that equipment shall be marked 'Do Not Use' (see rule 4.89).• Mobile Command Center (MCC) was the RWIC for the Surge – located at K05 "Kiss and Ride".• Mobile Command was on OPS 12 or available at 202-617-3500.• Weather at the time was steady rain.• It was noted that hydration is important during the work day.• The work area was a single track, track #1.• Inaccessible Track (IT) was the form of protection – wood tie chained to the rail, strobes, work mat, and shunts were in use.• ATC has installed a Medium Speed Restriction on Track 2.• Hot spots were discussed.• Power was down – Red Tag 2016333510A is in effect.• There were Roadway Maintenance Machines in the area.• Hazards were described as poor footing, low lighting, sound hazard from Route 66, and moving work equipment.• Watchman/Lookout required when equipment moves.• There were multiple work groups in the area: IT-NCS, G.W. Peoples, TRST, POWR, CTEM, and ATC.• It was noted that when vehicles are unattended they must have parking brakes and chocks applied.• Inova Fairfax and Dominion hospital were the closest hospitals to the work area.		
Remedial Action	N/A		

Photos:



Figure 1 - Un-secured Oxygen CGC alongside Un-secured Acetylene CGC



Figure 2 - K1 CM417+40 - 7 1/2" Crosstie



Figure 3 - Shunt Strap not attached at East End of the Work Zone



Figure 3 - RWP Work Zone Set-up - East End of Work Zone



Figure 4 - Roadway Maintenance Machines - properly chocked



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161130-WMATA-WP-1		
	2016	11	30				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
Inspection Location	Pentagon City to National Airport						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	2				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Job Safety Briefing			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	TRST 5					Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1100-1230	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
	MSRPH													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X								X	X				
Line(s)	C	Track Number	1	Chain Marker and/or Station(s)	From			To						
					Pentagon City (C08)			National Airport (C10)						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	TRST 5 provided a comprehensive job safety briefing to the work gang prior to accessing the right of way (ROW) at Pentagon City. The briefing outlined the work limits of the inspection, the protection that would be used (Train Approach Warning with Foul Time in red areas), the required Personal Protective Equipment (PPE), a review of hotspots, and a review of hazards that would be encountered on the ROW. TRST 5 inspected all employees and FWSO members to ensure all							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL		Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2016.12.06 13:18:56 -05'00'		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Chad Broski, Mike Vitale			



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	required PPE was in place and that all RWP training was current. No exceptions were taken with the briefing.												
Remedial Action	N/A												
Inspection Activity #	2	Inspection Subject				Remedial Action Verification			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	TRST 5				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1100-1230	Outside Shift	No	
Related Reports	N/A				Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference			
	RWPM												
	MSRPH												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X								X	X			
Line(s)	C	Track Number	1	Chain Marker and/or Station(s)	From				To				
					Pentagon City (C08)				National Airport (C10)				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A							
	N/A		N/A										
Description	<p>FWSO performed a track inspection from Pentagon City (C08) to National Airport (C10) to follow up on open remedial actions from the previous SafeTrack surge.</p> <ul style="list-style-type: none">FWSO closed remedial action 896, which required WMATA to replace a compromised third rail section between chain markers C1 302+85 and 302+97.FWSO also was able to close remedial action 873, which required WMATA to repair compromised grout pads from chain marker C1 317+75 to C1 330+35.Finally, FWSO closed remedial action 850, which required WMATA to replace a defective fastener underneath the third rail end approach at C1 355+00.FWSO was not able to close remedial action 874, which requires WMATA to repair compromised grout pads from C1 303+98 to 312+10. FWSO inspectors observed wooden forms used to pour new grout pads still in place without new materials poured in them. While inspectors did not note a condition requiring a speed restriction, WMATA should return to this area to complete this work. <p>Additional observations:</p> <ul style="list-style-type: none">FWSO noted three expansion cables that were secured to a fiberglass kindorff strut using zip ties, rather than the standard fiberglass clamp at 312+95. 1 of 4 cables are secured correctly in the picture below.FWSO noted several stud bolts not installed to the required depth at the crossover tracks leading into the pocket track at National Airport (C10). These bolts, located at chain marker 361+00, were installed with as much as eight inches out of the invert, leaving just 3 of the 11 inches in the ground. While these studs were secure, the lack of depth of the stud could lead to premature failure of the stud. WMATA should revisit this area and install studs to the proper depth.							Number of Defects		2			
								Recommended Finding?		Yes			
								Remedial Action Required?		Yes			
								Recommended Reinspection?		Yes			
Remedial Action	<ol style="list-style-type: none">WMATA must replace zip ties securing expansion cables to kindorff strut with fiberglass clamps.WMATA must assess and replace studs not installed to required depth on the tracks leading into the pocket track from track 1 at chain marker C 361+00.												



Photos:



High Studs found at C1 361+00





Expansion Cables improperly secured to fiberglass strut



Inspection Form

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United States Department of Transportation
Federal Transit Administration

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20161130-WMATA-WP-2		
	2016	11	30				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Fort Totten, Red Line, B-06						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-RI-OBS				
Inspection Units	1	1				
Inspection Subunits	8	2				
Defects (Number)	0	2				
Recommended Finding	No	No				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Optional				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST UNIT 80					Accompanied Inspector?	No	Out Brief Conducted	No	Time	2200 0600	Outside Shift	Yes	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWP													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
		X						X						
Line(s)	Red Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							Red line inspection		Red line inspection					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	Prior to observation of TGV-01, a job safety briefing was provided by TRST Unit 80. The briefing was complete and comprehensive. It included WMATA level 1 ID							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				

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Inspector in Charge - Signature WINSLOW L. POWELL		Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2016.12.06 13:22:07 -05'00'	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Corwyn Foster, Al Nepa, Kevin McDonald		



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	check, type of protection, hospital locations and potential hazards. It included type of protection and procedures for when and if the TGV-01 car stops and roadway workers enter the roadway. There were no exceptions taken to this briefing.	Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track Riding Observation					Activity Code	TRK	RI	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	2200 0600	Outside Shift	Yes
Related Reports				Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	TRST 1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X	X	X					X	X	X	
Line(s)	Red Line	Track Number	1	Chain Marker and/or Station(s)	From			To			
					Shady Grove			Brookland Station			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	TGV-01		N/A								
Description	<p>FWSO team accompanied and observed the crew of the TGV-01 (track geometry vehicle) perform rail and geometry testing between Shady Grove main line 1 to Brookland Station. The testing was primarily for rail defects and had to be conducted at speeds not to exceed 12 MPH, so limited geometry data could be gathered at that speed. During the observation, the following was identified:</p> <ol style="list-style-type: none"> TRST 1000, At CM 594+00 an unsecured fire extinguisher was observed lying in the walkway field side of the track. This condition was reported to a TRST work support group following TGV-01. TRST 1000, At CM 570+00, switch number 9, between the heel block and the frog, a tight gage condition was detected measuring between 55 ½ and 55 ¾ inches. This resulted in an out-of-service (OOS) condition, which was reported to a TRST work group. 						Number of Defects		2		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommended Reinspection?		No		
Remedial Action	N/A										

Photos:

