EXHIBIT 3-GG

Docket No. DCA-08-MR009

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

Examples of Efficiency Tests Employed by Violia Transportation on Its Other Systems in the United States and in Other Countries, Dealing With Operation Rules Oversight and Enforcement

VEOLIA TRANSPORT

LIGHT RAIL CONTROLLERS COMPETENCY AUDIT

Assessee's Name: _____ **Date:** _____ / _____ / _____

Assessor's Name: _____ **Employee No.** _____

Please ✓ or ✕ the box if assessee is competent or not.

1. O.C.C. PAPERWORK AND HANDOVER	Competent ☑ or ☒	COMMENTS
1.1 Fills out all required paperwork correctly.	☐	
1.2 Monitors the headway's to ensure correct spacing using all available tools.	☐	
1.3 Gets and receives a detailed handover with all required paperwork filled out.	☐	
1.4 Signs on to the S.C.A.D.A. network.	☐	
1.5 All memos requiring signing up to date.	☐	
1.6 Checks O.C.C. handover book for new instructions.	☐	
1.7 Log book entries are legible and neat.	☐	
1.8 Have the Controller explain the lost property procedure.	☐	
1.9 What is the phonetic alphabet for use on the radio?	☐	
1.10 How long must you wait to fill a shift if an employee does not show up?	☐	
1.11 What are trailable points and where are they located on the system?	☐	
1.12 What is the speed limit in the depot?	☐	
1.13 What indication would there be to a Driver if the Wash Bay was live?	☐	
1.14 Under what circumstances would you be required to give out a 'Workers Compensation' form?	☐	
1.15 Explain the correct use of the D.O.C. Communication Checklist.	☐	
1.16 Explain the procedure when taking an out of hours complaint.	☐	
1.17 Explain the correct way of issuing MetroConnect and Weekly tickets.	☐	
1.18 What is the procedure if an employee fails a Random Breath Test and what is the limit?	☐	

2. IDENTIFYING MAJOR POINTS ON THE L.R.V.	Competent ☑ or ☒	COMMENTS
2.1 Correctly locates white 'Fault Reset' button.	☐	
2.2 Correctly identifies where the towing cables are kept and what their function is.	☐	
2.3 Names all items found in the emergency packs.	☐	
2.4 Correctly finds the point the handwinder would be inserted.	☐	
2.5 Correctly identifies where they would find the 'Brake Computer/Controller' circuit breakers?	☐	
2.6 Correctly takes you through the procedure to reset the A.T.P.	☐	
2.7 Gives you the correct procedure to follow if pulled up by the A.T.P.	☐	

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3. SYSTEM MONITORING		Competent ☑ or ☒	COMMENTS
3.1	Correct use of the layover points at Central and Lilyfield.	☐	
3.2	What is the preferred procedure for putting L.R.V.'s into service and why?	☐	
3.3	Correct and professional use of the Radio and Comms System.	☐	
3.4	After how long a delay to the system do management have to be informed?	☐	
3.5	Where are the approximate crossing points for 2,3,4,5 and 6 L.R.V.'s running?	☐	
3.6	Has a good awareness of where L.R.V.'s are in the system.	☐	
3.7	Can explain the correct Battery Off/On procedure.	☐	
3.8	Gives the correct procedure when faced with a fault?	☐	
3.9	Answers the help point professionally?	☐	
3.10	Updates the Station information displays as required.	☐	
3.11	Follows the Timetable to the best of their ability.	☐	
3.12	If you have lost radio contact with the L.R.V.'s what procedure would you follow?	☐	
3.13	What is the correct procedure for an L.R.V. when approaching a work party on the line?	☐	
3.14	If an L.R.V. arrived at Convention Upline and faces a red signal, what reason would there be apart from a technical fault?	☐	

4. EMERGENCY PROCEDURES		Competent ☑ or ☒	COMMENTS
4.1	Who would you contact and what information to quote in the event of a traffic light failure?	☐	
4.2	Under what circumstances would we extend service to the western extension after normal hours?	☐	
4.3	Can explain the correct procedure to isolate and rectify door faults.	☐	
4.4	Under what circumstances can the A.T.P. be turned off when in service.	☐	
4.5	What procedure would you follow if an L.R.V. driver has passed a signal at stop without permission.	☐	
4.6	What is the correct procedure for pumping the brakes off if they are locked on.	☐	
4.7	What action would you adopt in the event of a accident or derailment?	☐	
4.8	An L.R.V. Driver sights an obstruction on the O.H.L.E. and cannot stop in time what procedure do you follow?	☐	
4.9	An L.R.V. Driver reports that the O.H.L.E. has come down what procedure do you follow?	☐	
4.10	Demonstrates clear understanding of steps to follow in an emergency.	☐	

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5. SAFETY	Competent ☑ or ☒	COMMENTS
5.1 Who is responsible for the evacuation process?	☐	
5.2 Explain the procedure for evacuating passengers from a L.R.V.	☐	
5.3 Identify the assembly point at Central Station	☐	
5.4 Identify the assembly point at Capitol Square Station	☐	
5.5 Identify the assembly point at Haymarket Station	☐	
5.6 Identify the assembly point at Exhibition Centre Station	☐	
5.7 Identify the assembly point at Convention Station	☐	
5.8 Identify the assembly point at Pyrmont Bay Station	☐	
5.9 Identify the assembly point at Star City Station	☐	
5.10 Identify the assembly point at John Street Square Station	☐	
5.11 Identify the assembly point at Fish Market Station	☐	
5.12 Identify the assembly point at Wentworth Park Station	☐	
5.13 Identify the assembly point at Glebe Station	☐	
5.14 Identify the assembly point at Jubilee Park Station	☐	
5.15 Identify the assembly point at Rozelle Bay Station	☐	
5.16 Identify the assembly point at Lilyfield Station	☐	
5.17 Explain the proper procedure for lifting a box weighing 7.5kg.	☐	
5.18 What damage can be done to your body if you do not lift correctly?	☐	
5.19 Explain the potential hazards due to fatigue?	☐	
5.20 What measure could you take to combat the on set of fatigue?	☐	

Comments:

Assessee's Signature: _____ **Date:** ____ / ____ / _____

Assessor's Signature: _____ **Date:** ____ / ____ / _____

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VEOLIA TRANSPORT

LIGHT RAIL SHIFT OFFICER COMPETENCY AUDIT

Assessee's Name: _____ **Date:** ____ / ____ / _____

Assessor's Name: _____ **Employee No.** _____

Please ✓ or ✕ the box if assessee is competent or not.

1 SHIFT OFFICER DUTIES	Competent ☑ or ☒	COMMENTS
1.1 Describe what the Shift Officer Staff Report is for?	☐	
1.2 Describe what the Shift Officer System Report is for?	☐	
1.3 What is the handover requirement?	☐	
1.4 How often do you check the brochure racks on all vehicles?	☐	
1.5 Correctly describe the booking off of both ticket machines thoroughly.	☐	
1.6	☐	
1.7	☐	
1.8	☐	
1.9	☐	

2 SYSTEM MONITORING	Competent ☑ or ☒	COMMENTS
2.1 What is the procedure for checking the cleanliness of stops?	☐	
2.2 How would you deal with a Driver with the cabin door open, whilst in motion?	☐	
2.3 What procedures would follow, if a C.S.O. has informed you they are low on change?	☐	
2.4 How would you deal with a C.S.O. who is not in the correct uniform?	☐	
2.5	☐	
2.6	☐	
2.7	☐	
2.8	☐	
2.9	☐	

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3 EMERGENCY PROCEDURES	Competent ☑ or ☒	COMMENTS
3.1 What procedure would you follow, if you observe a passenger tripping over, while disembarking?	☐	
3.2 What procedure would you follow, if directed to assist an illness with a passenger on a vehicle?	☐	
3.3 What is the policy for dealing with the media?	☐	
3.4 What is the procedure when asked to assist in an event of an accident or derailment?	☐	
3.5	☐	
3.6	☐	
3.7	☐	
3.8	☐	
3.9	☐	

4 SAFETY	Competent ☑ or ☒	COMMENTS
4.1 What is the term "Working On or Near The Line" mean?	☐	
4.2 Can a work party work without a lookout?	☐	
4.3 How would you indicate a danger signal to an on coming vehicle? (For both day & night)	☐	
4.4 How would approach a gang of workers, "working on or near the line", without a permit?	☐	
4.5 Which part of the system does not have "Position Of Safety"?	☐	
4.6 Identify the assembly point at the Depot, during an evacuation?	☐	
4.7 Identify all the assembly points on the system?	☐	
4.8	☐	
4.9	☐	

Comments:

Assessee's Signature: _____ **Date:** ____ / ____ / _____

Assessor's Signature: _____ **Date:** ____ / ____ / _____

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VEOLIA TRANSPORT

LIGHT RAIL DRIVERS COMPETENCY AUDIT

Assessee's Name: _____ **Date:** _____/_____/_____

Assessor's Name: _____ **Employee No.** _____

Please ✓ or ✕ the box if assessee is competent or not.

1. PREPARING AN L.R.V.	Competent ☑ or ☒	COMMENTS
1.1 Observation: L.R.V. prepared correctly using 'Prep Sheet'.	☐	
1.2 Observation: Visual walk around of the L.R.V. performed.	☐	
1.3 Observation: Correctly checking of communications equipment.	☐	
1.4 Observation: All paperwork correctly filled in.	☐	
1.5 Observation: If any faults is found, its correctly communicated to the O.C.C.	☐	
1.6 Observation: Checked the positioning of the circuit breakers in the 'Circuit Breaker Board' in both driver's cabin before service starts.	☐	
1.7 When doing a transfer into service, you selected the incorrect movement, what is the correct procedure to follow?	☐	
1.8 What is the phonetic alphabet for the radio?	☐	
1.9 If the yellow light on the Depot points selection box is not illuminated, what does this mean?	☐	
1.10 What are the trailable points and where are they located in the system?	☐	
1.11 What is the speed limit in the Depot?	☐	
1.12 What indication would there be, if the Wash Bay is live?	☐	

2. IDENTIFYING MAJOR POINTS ON THE L.R.V.	Competent ☑ or ☒	COMMENTS
2.1 Correctly locates the white 'Fault Reset' button.	☐	
2.2 Correctly identifying where the towing cables is kept.	☐	
2.3 Name all the items found in the emergency packs?	☐	
2.4 Correctly finds the point where the hand winder would be inserted.	☐	
2.5 Correctly identifying where to find the 'Brake Computer/Controller' circuit breakers.	☐	
2.6 Describe the correct procedure to resetting the A.T.P.?	☐	
2.7 Describe the correct procedure if been pulled up by the A.T.P.?	☐	

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3. DRIVING AN L.R.V.	Competent ☑ or ☒	COMMENTS
3.1 Observation: Maintains a constant speed with smooth braking and acceleration.	☐	
3.2 Can correctly identify the signal aspects of oncoming signals.	☐	
3.3 Can define the three signal aspects we have in the system and the procedure to use when confronted by them.	☐	
3.4 Observation: Makes station announcements.	☐	
3.5 Observation: Communicates with the O.C.C. using the correct terminology.	☐	
3.6 Can explain the correct 'Battery off'/'Battery On' procedure.	☐	
3.7 Gives the correct procedure when faced with a fault.	☐	
3.8 Observation: Keeps good visual observation of the L.R.V. and its surrounds.	☐	
3.9 Observation: Pulls up at the correct position at the stations.	☐	
3.10 Where are the approximate crossing points for 4 and 5 L.R.V.'s in service?	☐	
3.11 Observation: Follows the timetable to the best of their ability.	☐	
3.12 Observation: Correctly answers a query through the onboard help points.	☐	
3.13 Observation: Operates doors in a safe and effective manner.	☐	
3.14 If you have lost radio contact with the O.C.C., what procedure would you follow?	☐	
3.15 What is the procedure for identifying an A.T.P. fault?	☐	
3.16 What is the correct procedure when approaching a work party on/near the line?	☐	
3.17 What does a white 'T' on the On-Street section signify?	☐	
3.18 If you pass a signal with a blown globe, what would you expect to happen?	☐	
3.19 If you arrived at Convention Upline and faced a red signal, what reason would there be apart from a technical fault?	☐	
3.20 Observation: Assessee adjust the Driver's chair to the correct seated posture.	☐	
3.21 How would you know if the Driver's chair is not adjusted correctly to your seated posture?	☐	
3.22 What is the result of not sitting in the correct position whilst driving an L.R.V.?	☐	

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4. EMERGENCY PROCEDURES	Competent ☑ or ☒	COMMENTS
4.1 Correctly describing the procedure to follow in a event of a system stoppage.	☐	
4.2 Has a working knowledge to how to rectifying onboard faults (eg. Converter faults, brake faults etc…)	☐	
4.3 Describe the correct procedure in isolating and rectifying door faults?	☐	
4.4 Under what circumstances can the A.T.P. be turned off when in service?	☐	
4.5 If you have a brake fault, that leaves you with no friction braking, what speed are you restricted to?	☐	
4.6 Describe the correct procedure in an event of a accident or derailment?	☐	
4.7 If you sight an obstruction on the O.H.L.E. and cannot stop in time, what procedure would you follow?	☐	

5. SAFETY	Competent ☑ or ☒	COMMENTS
5.1 Who is responsible for the evacuation process?	☐	
5.2 Explain the procedure for evacuating passengers from a L.R.V.	☐	
5.3 Identify all the assembly points on the system: Central Station to Lilyfield Station.	☐	
5.4 Explain the proper procedure for lifting a box weighing 7.5kg.	☐	
5.5 What damage can be done to your body if you do not lift correctly?	☐	
5.6 Explain the potential hazards due to fatigue?	☐	
5.7 What measure could you take to combat the on set of fatigue?	☐	

Comments: _____

Assessee's Signature: _____ **Date:** ____ / ____ / _____

Assessor's Signature: _____ **Date:** ____ / ____ / _____

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VEOLIA TRANSPORT

LIGHT RAIL C.S.O. COMPETENCY AUDIT

Assessee's Name: _____ **Date:** ____ / ____ / _____

Assessor's Name: _____ **Employee No.** _____

Please ✓ or ✕ the box if assessee is competent or not.

1. CORRECT START/END PROCEDURES TO SHIFT	Competent ☑ or ☒	COMMENTS
1.1 Observation: Ticket Machines were booked on correctly .	☐	
1.2 Observation: Checked that Float is correct.	☐	
1.3 Observation: Checked that Weekly Passes, MetroConnect Passes.	☐	
1.4 Observation: Correct checking of Communications equipment.	☐	
1.5 Observation: All start-up paperwork correctly filled in.	☐	
1.6 Observation: L.R.V. Driver's Cabin Door key was collected from Controller.	☐	
1.7 Observation: C.S.O. taking extra ticket rolls for the Ticket Machine.	☐	
1.8 Explains the correct way to mark Weekly and MetroConnect tickets.	☐	
1.9 Explains the correct way to mark 1-Day and 3-Day pass.	☐	
1.10 What is the correct procedure to exchange Weekly ticket, if one is found marked incorrectly?	☐	
1.11 On what day would they expect to sell most weeklies and why?	☐	
1.12 What is the phonetic alphabet for radio communication?	☐	
1.13 If working a Central booth shift, where do you leave your money bag when travelling to and from Central?	☐	
1.14 Explain the correct booking off, of both types of Ticket Machines.	☐	
1.15 Observation: All end of shift paperwork correctly filled in.	☐	
1.16 Observation: Correct float was made up for the next shift. (With enough coins and notes)	☐	
1.17 Where should you count your money and why?	☐	
1.18 What is the policy regarding overs and unders in C.S.O. revenue?	☐	
1.19 As a C.S.O., what is your responsibilities do you have, in regards to your float and the daily taking?	☐	
1.20 When relieved at end of shift by another C.S.O., what information would you pass on?	☐	
1.21 What is your procedure for off loading excess coin & notes?	☐	
1.22 Explain how you would obtain change if running low during your shift	☐	

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2. SYSTEM KNOWLEDGE	Competent ☑ or ☒	COMMENTS
2.1 Which stops interact with the Monorail system?	☐	
2.2 Which stop would you need if getting off at George Street?	☐	
2.3 Where are the Country Trains platforms at Central Station?	☐	
2.4 Which stop would you get off for the Imax Theatre?	☐	
2.5 What is the price for a single trip on the Monorail?	☐	
2.6 What time does the Monorail stop operating?	☐	
2.7 What Concession cards do we accept on our system?	☐	
2.8 What age do children have to be to buy a Concession ticket?	☐	
2.9 Name all people who are allowed free travel on our system.	☐	
2.10 What is the boundaries for Star City staff, in which they are allow to travel for free?	☐	
2.11 What would be the easiest way to get from Central to The Rocks.	☐	
2.12 What is the price on for a 2 zone Adult return?	☐	
2.13 If you were going to the Entertainment Centre, which stop would you get off?	☐	
2.14 What time does the Fishmarkets open in the morning?	☐	
2.15 If going to Harold Park Paceway, which stop would you get off?	☐	
2.16 Which stop would you get off, if going to the Glebe shops and Café's?	☐	
2.17 Is consuming of alcohol allowed on board the L.R.V.'s?	☐	
2.18 What is the price of a 1 zone Concession single?	☐	
2.19 Which stop would you get off to go to the greyhound races?	☐	
2.20 What is the name of the road above Lilyfield station?	☐	
2.21 Which stops could you get off for the Powerhouse Museum?	☐	
2.22 Where is the designated walking route within the depot?	☐	
2.23 Apart from MetroConnects is there any other tickets that can be use on both the Light Rail & Monorail system'	☐	
2.24 Which stop would you get off for the Novotel Hotel, Ibis Hotel & Mecure One Apartments?	☐	
2.25 What do the yellow lines inside the Depot indicate? (Not including the lines for the parking area)	☐	
2.26 What time is the last LRV at night to Lilyfield from Central?	☐	
2.27 What is your procedure, when a Driver hits a pedestrian or another vehicle?	☐	

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3. DIFFICULT CIRCUMSTANCES	Competent ☑ or ☒	COMMENTS
3.1 What action would you take, if a passenger insists that they are under 15 but have no proof?	☐	
3.2 What procedure would you take, if you are confronted by a passenger refusing to pay?	☐	
3.3 You have marked a ticket again when you shouldn't have. What will you now do to fix the situation?	☐	
3.4 You are confronted by a passenger with a $50 or $100 note and you do not have enough change. What will you do now?	☐	
3.5 Who can authorize you to give an abnormal refund and why?	☐	
3.6 What is your procedure for refunding another C.S.O.'s ticket?	☐	
3.7 Is it acceptable to take money and not issue tickets?	☐	
3.8 What would you do if a person in a electrical wheelchair is waiting to board an LRV at a stop?	☐	
3.9 A non-regular traveller boards the L.R.V. without any money, what will you do?	☐	
3.10 A Star City staff boards the L.R.V. without their ID, can they still travel for free?	☐	

Comments:

4. SAFETY	Competent ☑ or ☒	COMMENTS
4.1 Who is responsible for the evacuation process?	☐	
4.2 Explain the procedure for evacuating passengers from a L.R.V.	☐	
4.3 Identify all the assembly points on the system: Central Station to Lilyfield Station.	☐	
4.4 Explain the proper procedure for lifting a box weighing 7.5kg.	☐	
4.5 What damage can be done to your body if you do not lift correctly?	☐	
4.6 Explain the potential hazards due to fatigue.	☐	
4.7 What measure could you take to combat the on set of fatigue?	☐	

Comments:

Assessee's Signature: _____ **Date:** ____ / ____ / _____

Assessor's Signature: _____ **Date:** ____ / ____ / _____

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VEOLIA TRANSPORT

Driver Performance
Online monitoring

	Drives within speed limits Y/N	Driving technique braking and excelleration Y/N	Doors operations ,correct procedure Y/N	Demonstrates defensive driving skills	Audio announcements Y/N	Crossing Area instruction observed Y/N	On Time Departure
Driver ID: 41	Bends : Yes			Approaching Bends : Y			
Tram Number : 3017							
Service Number : 4	Platforms :	Platforms : Y		At road Junctions: Y	Yes		
Tram showing correct destination Y/N :			Y				
Driver in full uniform Y/N :	Junctions :	Junctions : Y			Door Closing	Y	Y
Time : 10:29 - 10:35							
Weather conditions : Wet Overall							
From : Connolly To : Abbey St.							
Date : 27-1-2009							
All speed restrictions adhered to Y/N							

COMMENTS

I travelled with _ from Connolly to Jervis and _ made plenty of announcements about doors closing No issues with Joes driving

Team

Sign

Date : 27-1-2009.

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COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

4013

Appendix A

DRIVERS'NAME	I.D. No.278

DRIVERS DECLARATION

I confirm that I have studied each of the Performance Criteria in this document. I understand the standards required of me and can perform to the required level of competence. I FEEL COMPETENT TO DRIVE THE TRAM SOLO ALONG ALL LINES IN PASSENGER SERVICE.

DRIVERS SIGNATURE	

TRAINER'S & MINDER'S DECLARATION

I confirm that my trainee has been trained in each of the Performance Criteria contained in this document.

TRAINER'S NAME	
TRAINER'S SIGNATURE	

ASSESSMENT DETAILS

Performance Standards coloured thus MUST be achieved

Date of Assessment	20 - 11 - 07
Location & Start Time	Sandyford Inbound @ 10:30
Location & Finish Time	Sandyford Outbound @ 11:16
Assessment Conditions	Wet but Sunny

RESULT

COMPETENT	NOT COMPETENT

ASSESSOR'S DECLARATION

The performance of the above named Trainee has been assessed against the criteria contained in this document. From the evidence presented to me I consider the Trainee to have HAVE/ NOT demonstrated the required level of competence and is IS/ NOT authorized to operate as a PASSENGER SERVICE DRIVER (ALL LINES).

ASSESSOR'S NAME	
ASSESSOR'S SIGNATURE	

1 Training & Assessment Structure	
Element 1	Taking Over Tram / Moving Off / Stopping / Terminus Procedure
Element 2	Driving Skills
Element 3	Communication Skills

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

Taking Over Tram / Moving Off / Stopping / Terminus Procedure

Evidence Criteria: Workplace Observation = O

PC No.	Performance Criteria	1st Attempt		2nd Attempt	
		Evidence O	Competent	Evidence O	Competent
1.1	Effectively communicates relevant information with the driver relieving/being relieved from duty e.g. radio messages received, infrastructure problems, condition of tram etc.	O	Y	B. Thomas	
1.2	Correctly re-programmes AVLS	O	Y		
1.3	Adjusts drivers accommodation – seat, mirrors, heating, ventilation BEFORE MOVING OFF	O	Y	E Sway Inbound	
1.4	Does not refer to any article or item when driving i.e. timetable, AVLS etc.	O	Y		
1.5	Checks internal mirrors & camera's before closing doors & ensures doors are closed properly	O	Y		
1.6	Presses RTS if required, obtains & checks proceed signal BEFORE moving away	O	Y		
1.7	Considers sounding bell & rings ONLY if appropriate	O	Y		
1.8	Thorough check of tram stop crossing area especially if opposing tram is stationery i.e. people emerging from behind opposing tram	O	Y	Bailey	
1.9	Applies min.power then gradual smooth acceleration	O	Y		
1.10	Concentrates on braking technique with progressive smooth braking when stopping – NO radio's, PA's etc.	O	Y		
1.11	Accurately positions tram at stop on loop e.g. avoiding "hops" onto loops	O	Y		
1.12	Release doors on correct side	O	Y		
1.13	Correctly observes headshunt procedure	O	Y		
1.14	Stops correctly before buffer stops at terminus	O	Y	SSC	
1.15	De-activates & secures cab before changing ends	O	Y		
1.16	Checks for suspicious packages, lost property, litter & damage when walking through tram	O	Y		
1.17	Checks AVLS showing correct destination & does not depart before scheduled time	O	Y		

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

Driving Skills					
Evidence Criteria: Workplace Observation = O					
		1st Attempt		2nd Attempt	
PC No.	Performance Criteria	Evidence O	Competent	Evidence O	Competent
2.1	Demonstrates that safety & comfort of passengers & safety of tram is the drivers primary concern	O	Y		
2.2	Concentrates totally on driving the tram	O	Y		
2.3	Conducts radio exchanges ONLY when safe to do so	O	Y		
2.4	Shows awareness of swept path encroachments & acts promptly by coasting or braking as required	O	Y		
2.5	Anticipates safe stopping & braking distances considering the prevailing track, weather, tram loading & traffic conditions	O	Y		
2.6	No roll back / roll forward on gradients				
2.7	Coasts the tram as appropriate	O	Y		
2.8	Maintains the timetable where practical	O	Y		
2.9	Shows courtesy & consideration to all road users	O	Y		
2.10	Obeys all tram signs, signals & PPI's	O	Y		
2.11	Shows awareness & anticipation of action of others				
2.12	Anticipates & acts appropriately at known hazard locations	O	Y		
2.13	Sounds bell warning before passing the rear of opposing tram or stationery HGV's – Danger of people emerging from behind vehicles	O	Y		
2.14	Drives at appropriate speed passing hazards, checking for people & obstructions	O	Y		
2.15	Maintains safe distances from road vehicles & people				
2.16	Does NOT anticipate a proceed on approach	O	Y		
2.17	Stays on the stop sign loop if junction is blocked when appropriate				
2.18	Does not exceed indicated speed signs	O	Y		
2.19	Allows sufficient time for passengers to board & alight "full trams" at congested stops – use's "open all doors"	O	Y		

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

Communication Skills					
Evidence Criteria: Workplace Observation = O					
		1st Attempt		2nd Attempt	
PC No.	Performance Criteria	Evidence O	Competent	Evidence O	Competent
3.1	Use's correct radio terms, procedures & protocol	O	✓		
3.2	Understands & Obeys all instructions received from CCR	O	✓		
3.3	Correctly identifies & reports tram faults / infrastructure faults	O	✓		
3.4	Reports to CCR variations / delays to the timetable, obstruction to tramway, out of course situations & follows instruction	O	✓		
3.5	Quality of PA announcements is clear, concise, informative & accurate	O	✓		

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

Questions

Questions to be asked to complete observation of the driver if a particular situation does not arise during the assessment. Mandatory questions must be asked, non-mandatory have to be sampled.

M/O	Items	P/F	Comment
	Taking Over Trams in Service		
O	Why do I need to communicate with the driver when taking on a tram?	P	To learn about tram failure (door isolated for example) or specific problem on line
O	How do you maintain safe cab discipline?		No unauthorized people in cab, equipment/articles safely stowed away, windscreen clear, no earpieces personal stereos & portable radios etc
O	When can you use a mobile phone?		Never while driving (same as for a car driver). Use only when the tram is stationary out of the cab or if operationally essential if all other com systems have failed
O	What should you do if a relieving driver is delayed taking your tram over?		Contact CCR & advise them of situation so that they can organise for relief driver to attend tram, make PA announcement apologising for delay
O	Where and when can you eat, drink or smoke?		NOT on the tram, Show respect to customers, do not smoke when on duty in the presence of customers
	Tram Stop Procedures		
O	When can you use the door closure override?	P	ONLY after giving a PA warning if appropriate
M	When can I use the horn?	P	In presence of unexpected danger. Action should be first to slow down or if the warning by chimes has been ineffective
O	What is the procedure to start from a stop		Thinks of elderly people and risk of fall. Applies min. power then gradual, smooth acceleration to avoid tram jump. The brakes need time to release.
O	When should you use manual sanding?		Tram will sand automatically. If track very slippery, inform CCR. Use sand only when instructed by CCR and never over points
	Terminus Tram Stops		
O	Why do you need to walk through the tram when changing ends?		To check for suspicious packages, Tram cleanliness, syringes on seats etc.
O	What do you do if you discover a syringe, body fluid?		Report to CCR to arrange cleaning. Takes action to protect passengers in areas contaminated. If you cannot secure the section of the tram with CSO's detrain the passengers with CCR authority.
O	What do you do if you discover a suspicious package or received a bomb threat?		Report any suspicious packages to the CCR. Do not use your mobile phone or hand held radio close to the packages Record any code word

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

	Passenger Service Driving Skills		
O	When can you maintain radio communication with CCR?	P	Conduct radio exchanges only when safe to do so and NOT whilst driving along a street or interfacing with other road users e.g. at crossings & junctions (NB. Control could call for an emergency).
O	What is the procedure if you perform an emergency brake?		Check welfare of passengers before proceeding. Report emergency brake to CCR.
O	What is the procedure when you stable a tram on a storage lane after it's brought in out of service?		Log off AVLS, turn off saloon lights and turn off heating in saloon and cab.
O	If you think that a car or truck is parked on the swept path., what do you do to ensure you don't collide?	P	Look at the swept mark indicator. Do not proceed if unsure obstacle is in swept path. Contact CCR for possible visual of scene. Sound chimes at car/truck to get their attention to move vehicle.
M	Is it enough to check if the head of the tram is clear of an obstacle to be safe to go through	P	No, the tail can swept more than the head and you will hit the obstacle. Look only at the swept mark, not if the head is clear
	Defensive Driving Skills		
M	If you have to make an unexpected stop on the line, what are the 2 first things you have to do?	P	Put the Hazard light on, Call CCR
O	What can happen in wet conditions?		The stopping distance may increase by 50%. Regulate speed according to conditions; reduce speed in the city in particular.
O	What do you do in poor visibility?		Regulate speed according to prevailing conditions, Use of bell/horn as appropriate, always stop safely in the distance which is seen to be clear
M	What is a safe separation distance from road vehicles or following trams?	P	It is the stopping distance in the worst cases. At 30km/h 30 meters at 70 km/h 160 meters. In wet conditions distance can increase by 50%
O	What do you do if you notice people on the track?		If they are on the track, slow down immediately, chimes and horn if required. Do not anticipate that they will get out of the tramway.
	Tramway Junctions & Highway Crossings		
O	What's an Exit Loop and explain its purpose?		When tram passes Exit Loop it allows traffic signals to return to normal. If stuck in the junction the car signal will return to normal after a period of time
O	What should you do if you observe an Emergency Vehicle approaching your path?		Give way to Emergency Vehicle when safe to do so.
O	At a junction what do you do if all signals have failed? i.e. both tram and traffic signals	P	Stop before junction, contact CCR and await instruction. You can cross the junction under the rules of the road: use hazard lights & bell/horn were required and proceed through junction at 5kph

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT IRELAND LIMITED

O	At a junction what do you do if the tram signal has failed? i.e. traffic signals for road users are still working		Stop before junction, contact CCR and await instruction. CCR will attempt to correct situation with DCC and/or organise for Gardai to attend the scene to allow trams through the junction.
O	When should you stop if OCS fails?		Do not attempt to cross a junction. Stop tram in safe place, not obstructing junctions, pedestrian crossings & access to properties, or coast tram to next stop if possible.
O	What do you do if a junction is blocked by road vehicles?		Stop before junction. Contact CCR to advise of possible delays. Do not proceed into junction if route is blocked. Wait for signal sequence to give another proceed.
O	What is the procedure when an incident on the line will cause delays to your tram?		Make effective PA announcement & keep customers informed/updated regularly with any developments
O	What steps would you take if you notice a special needs passenger?		Provide effective assistance to customers with special needs Open the doors if required Leave extra time to settle in tram
M	What steps would you take if you notice a lost minor?		Inform CCR. Stay with lost minor until parents/CSO's Gardai arrive – DO NOT leave lost minor with a member of the public
O	What do you do in case of overcrowding?		Report to CCR the location, if required use internal PA to advise of tram frequency and when the next tram is due.
O	What do you do in case of a passenger falling ill or injured on the tram or platform?		Promptly report it to CCR & request medical assistance if required. Do not leave passenger alone if assistance is required.
O	A disturbance occurs on your tram, what do you do?		Promptly report it to CCR, stop tram at next stop to allow people not involved to escape

Tramway Safety Instruction Manual
Valid from: 01/11/05

Connex Transport Ireland Limited,
LUAS Depot,
Red Cow Roundabout,
Clondalkin,
Dublin 22
Rev 01

This copy belongs to:

Name:

Staff Number:

Revision	Date	Description	Prepared	Checked	Approved
01/05	1/11/05		Bruno Fualdes	Paul Anderson	Brian Brennan

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1 INSTRUCTIONS

In the amendments, regulations or comments that are new or materially changed are indicated with a line in the outer margin.
S forms are designated simply S1, S2, etc.
The terms "next stop", "next signal", etc., are always counted as being in the direction of travel. When the tram is standing at a stop or at a signal, the term refers to this, or else to the next station or signal in the direction of travel.
The following abbreviations, which do not occur in everyday parlance, can be used in basic and inflected forms and also in compound words:

1.1 Basic concepts

1.1.1 Abbreviations

AVLS : Automated Vehicle Location System
CCR : Central Control Room
DK : Drivers Key
EB : Emergency Braking
EH : Emergency Handle
EHP : Emergency Help Point
ESR : Emergency Speed Restriction
LED : Light Emitting Diode
MCB : Main Circuit Breaker
NM : Normal Mode
OM : Operations Manager
PID : Public Information Display
PPI : Points Position Indicator
RTS : Ready To Start
SM : Shunt Mode
SN : Safety Notice
TED : Traffic Event Database
TBCU: Traction Brake Control Unit
TCMS: Traction Control Monitoring System
TS : Traffic Supervisor
TSI : Traffic Safety Instruction Manual for Trams

1.1.2 Definition of terms

CCR : Place from which tram operations are managed and monitored.

Contractor : Person, company or organisation engaged to use own staff to carry out works within the area of the railway.

Depot area : Delineated area for maintenance of trams

Double track :- Double track where one track is normally used for trams going to the city centre (inbound track), and the other track for trams going outside the city (outbound track)

Driver : A person who has completed relevant training and is Certified by Connex Transport Ireland, to drive a tram

Emergency Braking : Maximum Brake available including the electro dynamic brake. EB occurs either by driver action when driver puts the master controller to the emergency brake, or automatically when a safety critical function is not met (vigilance device, door open, Emergency Exit handle)

Inbound : Trams travelling towards the city.

Incident Officer : Anyone trained (By Connex Transport Ireland Ltd in Incident Management Training)to attend incidents on the system.

Emergency Denergisation Immediate shutdown of power

Emergency Isolation : Power shut down between two points on the line

General notice : Information notice for drivers which must be obeyed, but is not safety critical.

Isolation : Section of the track isolated and physically earthed

Lead cab : Foremost cab in the direction of travel.

Occupation : Work allowed on the system, while service is running. No isolation required.

Outbound : Trams travelling away from the city.

Parking brake : Braking system applied automatically to prevent the vehicle from starting to roll when at standstill with or without the tram being prepared.

Passenger : Person travelling by tram, but not staff on duty.

Possessions : Activity that implies that a section of line will be allocated for works which, for safety reasons, require the track to be barred. Isolation required

Platform/Stop : Designated place for passengers to board and alight the tram.

Safety Braking. : Maximum brake available without load compensation and electro dynamic brake. The red mushroom has to be pushed to apply it. Check if bodycatcher has dropped

Safety Notice : Communication of a safety nature

Single-track section : Section of line which is used for trams going in either direction.

Swept path area where tram will collide with an object if located in that area. The swept path is wider on bends where trams protrude.

Traffic light : Lights to be obeyed by general road traffic

Tram signal: Signal to be obeyed by tram drivers

PPI: Indication for the layout of points

1.2 Establishment and application of the regulations

- TSI LUAS was developed by Connex. TSI is compliant with the Passenger Safety case and defines the rules and regulations to be applied on the Luas network.
- TSI will be reviewed in case of change in the operation and at least every 3 years. Changes shall be made known through the publication of notices.
- TSI shall apply to all activities affecting traffic safety and to applicable aspects of new construction.
- On street tracks, the Road Traffic Regulations also apply.
- Safety measures must under no circumstances be set aside, even if this means a tram is delayed. Faced with impending danger, however, everyone must take measures deemed necessary to prevent or minimise danger, even if such measures deviate from TSI.
- If there is any doubt as to which of several regulations applies in a given case, the rule that provides the greatest safety shall be applied.
- Where TSI states that a person **shall "carry out"** a task, it is the personal responsibility of that person to carry it out. If an action **has to be "taken care of"**, someone else can be asked or instructed to carry out the task.

1.3 Ownership of regulations

- All safety critical staff must be in possession of a personal copy of TSI. TSI must also be available at the sign-on points.
- Each individual is responsible for continuously following instruction and safety communications.
- Operation must ensure that lists of issued printed amendments and Notices are available in the workplace.
- Communications regarding a new TSI, TSI Notice or printed amendments to these as well as safety communications must be available at the CCR and at the booking points for as long as they remain in effect.

1.4 Access to the tracks

- The track area which is not accessible to the public, including depot areas, may only be accessed on the instructions of Connex.
- Instances of trespass by the public on these sections of the tramway must be reported to the CCR. CCR must then notify the drivers of any trams approaching the area.
- Central Control must record all details of any Trespass by Public in TED.
- Anyone not fulfilling the requirements prescribed above is not permitted access to the track area without supervision.
- Each individual accessing the track area must wear high-visibility clothing on the upper torso. When accessing the track in darkness a torch must be carried.
- On street tracks, the road owner's requirements for high-visibility clothing must also be met.

- High-visibility clothing need **not be worn** by tram personnel in uniform for brief movements to or from trams, or when moving along designated gangways within the depot.
- Each individual entering the track area must be aware of any vehicle movements and realise that trams can come unexpectedly from either direction.
- **Note that trams may come unannounced and without stopping at the stops.**

1.5 Working on or near the track

To work on or near to the track, a permit to work has to be applied for.

- **Permits may be revoked if persons are put at risk or**
- **Damage any part of the infrastructure**

2 TRAFFIC MANAGEMENT

2.1 CCR organisation

- CCR is staffed 24 h 7 days a week.

2.2 Issuing orders

- Communications of a safety nature must be repeated by the recipient. The person sending the communication must confirm that the recipient has correctly understood the implications.
- In dialogue with CCR, the driver must state his staff name and employee number, the location and Service number of the tram, as well as the direction of travel.
- In telephone and radio dialogues with CCR, the employee number must be stated, where relevant.
- Dialogues regarding matters affecting the immediate safety of the tramway must take place via radio; these may only take place by telephone where use of the radio is not possible.
- Radio dialogues are always led and concluded by CCR, all communication must go through CCR

Change in signalling device, etc.

- Whenever a signalling device, permanent speed sign or similar is to come into use, be taken out of use, moved or modified, CCR and Driving staff must be informed by means of a written Notice. This Notice should be put up on the notice boards before the instruction takes effect. Emergency modification will be put in place through CCR specific procedure.
- Notice as per this section must remain on the notice boards until the date on which the Notice ceases to be in effect.

Types of Notices

- **Safety Notice** Safety critical notice to be obeyed by anyone it's addressed to. New SN are displayed in the Late Notice board.
- **General Notice** information notice, not safety critical, but must be adhered to .

Notices have to be signed for when signing for duty or when coming back from absence.

3 SIGNS AND SIGNALS

The signalling devices are normally located to the left of the track.(Abbey St Emergency cross being the exception ie on the right) Signalling devices may be located elsewhere if this is deemed appropriate. Signals may be supplemented by arrows or signs.

Only those signal signs, signalling instruments and signal images stated in TSI or otherwise established by Notice may be used. They may only be used in the manner and for the purpose prescribed in TSI.

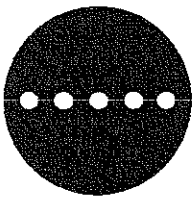
Signalling devices that are taken out of service or have not yet come into service are to be bagged.

Anyone discovering a faulty signalling device must report this to CCR at the earliest opportunity. CCR shall ensure that the required measures are taken.

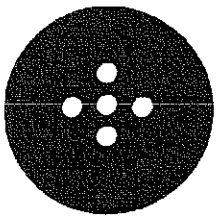
In the case of a faulty signalling device, CCR shall inform the drivers concerned of the situation.

3.1 Tramway signals

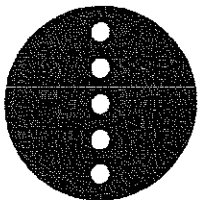
Tramway signals apply to all movements and may display the following signal images:



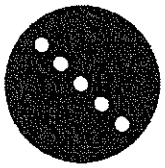
Stop



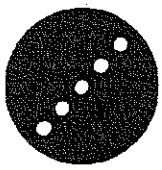
Stop unless unsafe to do so



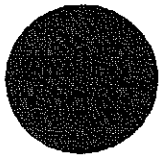
Proceed straight if safe to do so



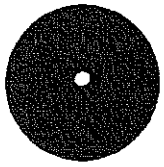
Proceed to left if safe to do so



Proceed to right if safe to do so

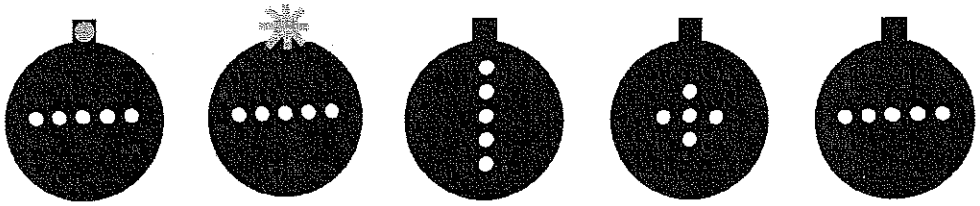


No signal
If tramway signals and road junction traffic signals are not operational, rules of the road apply



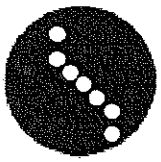
Single Dot
Contact CCR for further instruction

When the tramway signal is immediately after the stop, an indicator lamp above the signals is lit to acknowledge receipt of the request.



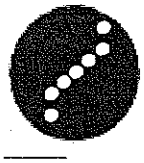
Stop RTS Accepted	Flashing Changing	Proceed straight if safe to do so	Stop Unless unsafe to do so	Stop

3.2 Point Position Indicator



Point set to the left

Position of the point not detected Stop Contact CCR Danger derailment possible. Visual check of point required

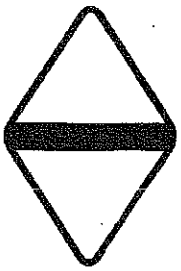


Point set to the right

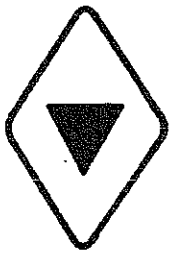
3.3 Permanent signs

Regulatory signs consist of a diamond shape with black border on a white background. These signals are defined by a statutory requirement.

SPEED SIGN
Maximum permitted speed as indicated in km/h



STOP SIGN
Stop and proceed with caution if safe

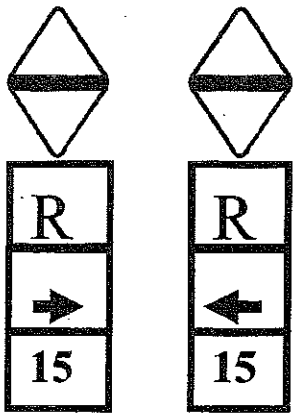


YIELD SIGN
Yield right of way to another light rail vehicle or to traffic on a road ahead

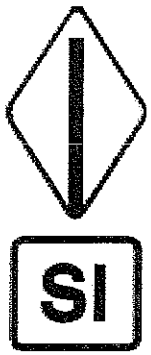
The speed is not a target, trams are driven under Line of Sight principle, speed may have to be adjusted according to the environment or adverse weather conditions.

Instructions signs consist of a black bar extending vertically from the base of the sign,are completed with an information plate which is placed below. The plate is rectangular with black border on a white background. The plate indicates in black symbols, figures or letter on a white background the nature of the instruction which is being conveyed. These signals are defined by the operators.

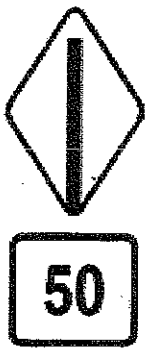
Instruction Plate



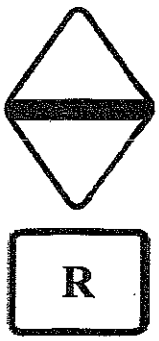
Depot Entry



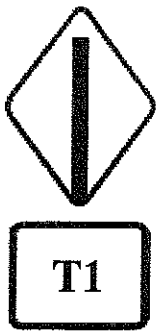
Indication of a Section Insulator

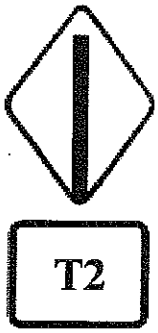


Indication of the maximum permitted speed



Stop Contact CCR





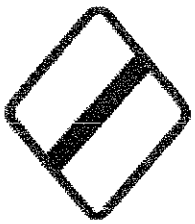
Turning point for 1 tram	Turning point when two trams are coupled

Note: the maximum permitted speed can be indicated by a Regulatory sign or an Instruction sign.

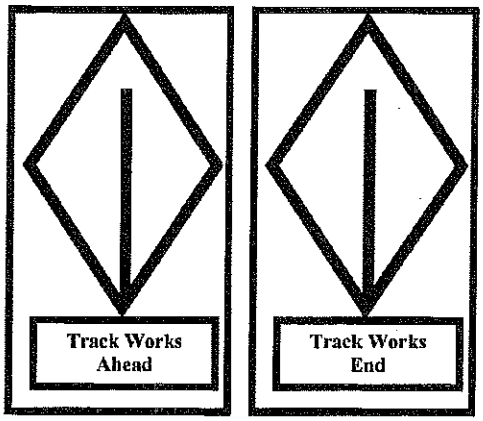
3.4 Temporary Speed restriction

These signals are placed to indicate a temporary speed restrictions.

Commencement Sign Maximum permitted speed as indicated in Km/h



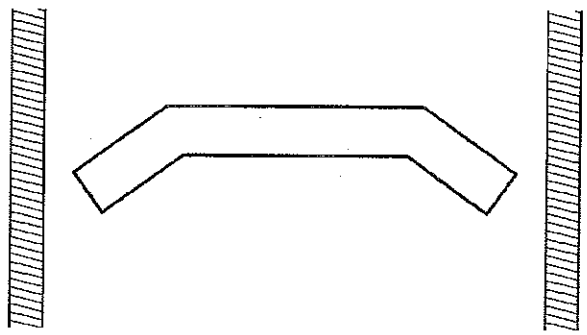
Termination Sign , Line Speed applies



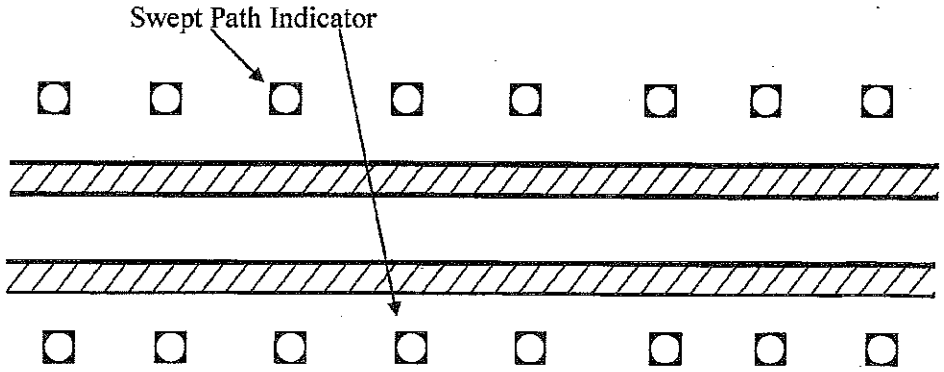
Commencement and termination of track works

3.5 Ground markings

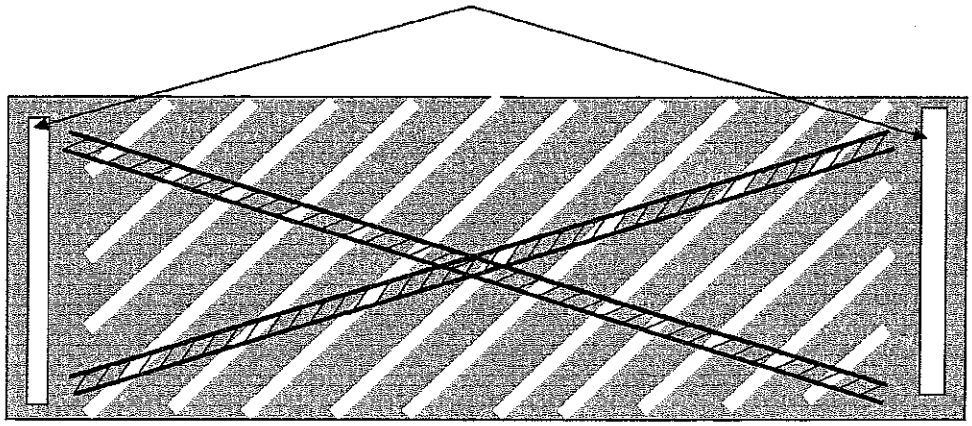
Tram Stop Line
This indicates the tram stop line associated with an AVLS loop. Tram stop lines consist of a white line according the width dimensions of the tram track.



Swept Path Marking
On street and at junction the swept path is indicated by dot along the track



Crossing area marking
Two white lines delineate the area of crossing; only one tram is permitted to be in this area at any time.



3.6 Tram signal at Junction

A number is indicated on the poles of the tram signal at the junction. When communicating with the CCR, this number has to be indicated.

3.7 Hands signal/Garda signs

Garda officers give signals as per the Road Traffic Signs governmental statute. One hand raised means **STOP IMMEDIATELY**

Staff **Hand Signals must be given clear**

 Stop – both arms raised above the head *Note: Any light or article waved violently denotes danger.*	 **Caution or slow down** – Either arm held in a horizontal position with the hand moved up and down
 All right to proceed – either arm held above the head	 **Move towards hand signal** – either arm moved across and towards the body at shoulder level
 Move away from hand signal – either arm moved in a circular motion away from the body	

4 DRIVING MODE

- **Driver key on NM**; Normal mode. Used for general driving.
- **Driver key on N**; Neutral mode. The cab is not active.
- **Driver key on SM** Shunt mode. Used in the depot for running a tram through the wash in the shed and coupling the speed is automatically limited o 3 km/h
- **Driver key on NM and push button for reverse pushed** Reverse mode- The speed is automatically limited to 3 km/h. The reverse mode is strictly forbidden on street(with the exception of tow/push)

5 PASSENGER SERVICE NORMAL OPERATION

The tramway is always driven on a line-of-sight basis

- Drivers must drive according to prevailing conditions
- Drivers must be able to stop before any hazard that is present or can be expected to be present
- Drivers must show regard for the safety of all other road users (even when other road users don't show regard for their own safety)
- Drive to AVLS timetable

5.1 Reporting for Duty

It is the responsibility of all drivers to report on time at the designated location fully equipped for their duty.

When signing on for duty, drivers must have correct equipment to carry out all duties safely:

- Have with them any prescribed spectacles or contact lenses if required to wear them
- Be wearing the correct uniform and PPE in good condition at all times whilst on duty,
- Comply with Connex Alcohol and Drugs Policy
- Inform their supervisor if he or she is taking any medication prescribed or otherwise
- **Read and sign for any Notices**
- Sign on for duty in the booking on register.
- Signing on for duty is a declaration that you are fit for duty

If a member of staff feels that they are unfit to complete their duty during the course of that day, they must inform a Traffic supervisor/Team Leader or manager immediately.

When returning back from leave, drivers are required to check all notices issued during his/her absence.

When returning back from sickness, drivers are required to fill a return to work form with their TL or manager

5.2 Tram preparation

The driver must check and sign the Vehicle Log Book in both ends to ensure that the pre-service check is complete and valid.

Only trams pre-serviced by VMC with a valid certificate no longer than 24 hours can be used for passenger service.

If the driver finds some vehicle defect or deficiency, the driver has to immediately inform the CCR.

Trams being returned from service must be signed back over to VMC

Drivers have to perform the following checks prior to leaving the depot (OP-008):

Check will start in the non leading cab in order to avoid an unnecessary trip in the tram.

- Visually check tram upon approach
- Check all external lights, panels, body catcher is raised,
- Check there is nothing under the wheels, i.e. scotches and targets or tags- in particular when taking the tram from the depot shed
- If tram is deprepped, activate battery, if prepped skip next point.
- Prepare the tram by turning drivers key to "P"
- While this is happening check the log book is in date, and all safety equipment is present, check all seals are present and not broken
- When the tram is ready TCMS screen indicates "cab not in service"
- Activate the cab by turning the driver key to NM
- TCMS screen will then show the status of the tram, i.e. brakes, MCB closed, driving mode, voltages present
- When the cab is active, EB is displayed on the screen, check the following,
    - bell & horn,
    - lights,
    - wipers& washer,
    - PA,
    - doors open and close,
    - safety brake,
    - track brake,
- Check the traction: releases the brakes and then they reapply when in normal service brake i.e. brakes go from A to R and to A again
- Turn driver key to N and go to opposite end and repeat the above
- When walking through the tram checks the inside for any problems, i.e. EH covers, panels are secure.

  Red Line
- If all is satisfactory call CCR for permission to leave storage and go to avoidance lane to initialize AVLS with service number, check loop detection, and points directional buttons are active

  Green Line
- If all is satisfactory go to top of storage lane to initialize AVLS with service number, check loop detection, CCR for permission to move to mainline.

- When done successfully move to depot gates and get permission to enter main line

5.3 Actions whilst in motion

- Trams are driven under the Line of Sight principle. The driver must observe a sufficient distance from trams ahead or any other vehicles or pedestrians on the track so that he can stop his tram without colliding.
    - Special attention must be given to conditions that may affect braking capacity, e.g. falling leaves, mist, fog.
    - In wet conditions braking distance may increase by 50% to that of dry conditions. Drivers must adapt their speed, ie lower speed to stop, ease acceleration
- The driver is responsible for the safe operation of the tram. Whilst moving, the driver must pay attention to the tram, the track, external and internal indications

and signals and adjust driving to suit prevailing conditions and the requirements of traffic safety. The driver must not pursue anything that could distract his attention.

- Trams must always be driven in such a way as to avoid unnecessary jerks
- The doors must only be opened or released once the tram has stopped. The driver must stop at the defined location on the platform.
- If doors have to be opened anywhere else, CCR must be consulted. In such a case, the doors may only be opened or released after the driver has alerted the tram passengers.
- The driver should pay attention to other trams and immediately communicate any irregularities observed to CCR
- The driver should report all infrastructure and tram damages or unusual behaviour to the CCR. If required the tram has to be stopped as soon as possible when safe to do so, and to wait for instruction from CCR. Any possibility of contact with the overhead by a person or the need for the overhead to be de energised, must be reported immediately to the CCR.

5.4 Starting a journey

Before a tram may start for a journey from the depot or terminus, the driver must, where relevant, check that

- the departure time is correct as per the timetable and destination boards are correct,
- the doors have been closed and the platform clear
- If necessary in case of large attendance or if the driver does not have a clear view of the whole of the side of the tram, the passengers must be alerted via a PA announcement that the doors are closing.
- Tram has to be driven according to the timetable

5.5 Driver change

- During a changeover of personnel, the incoming driver must ascertain from the outgoing driver whether there are any special circumstances that could be of significance for the safe performance of the tram.
- Partially log out of AVLS before handing over .

5.6 Crossing area

5.6.1 Crossing Area Connolly and St. Stephens Green

The Crossing Area will be defined as comprising all tracks (inbound, outbound and crossovers) on the approach to Connolly and St. Stephens Green tramstops delineated by the existing white lines and additional white hatched lines.

The Stopping Point is indicated by a Stopping Point sign.

a) **General Principles**

1. Only one tram is permitted to move at a time within the Crossing Area.
2. Except where an outbound movement has already departed from a platform, **inbound movements have priority.**
3. All inbound movements shall be routed to the outbound platform when it is available. Only when the outbound platform is not available shall trams be routed to the inbound platform. In the event that no platform is immediately available the CCR shall determine the sequence of movements.
4. The maximum speed limit in the Crossing Area is 10 km/h.
5. Reversing in a Crossing Area is not permitted except under instructions from the CCR.
6. Except in an emergency, trams shall not be permitted to stop within the Crossing Area.

b) Inbound Movements

All inbound movements shall:

1. **Always STOP at the Stopping Point.**
2. Ensure that the correct route has been selected and this is indicated by the PPI. **In the event of the PPI not functioning, contact the CCR .**
3. Give way to any outbound movement that has already departed from a platform.
4. Proceed into the platform if the Crossing Area and platform are clear and it is safe to do so.

c) Outbound Movements

All outbound movements shall:

1. Not depart until any visible inbound movement has arrived at and is at **a stand in the platform.**
2. Ensure that the correct route has been selected and this is indicated by the PPI. **In the event of the PPI not functioning, contact the CCR .**
3. Depart if it is clear and safe to do so.

5.6.2 Crossing Area TALLAGHT

The Crossing Area is defined as comprising all tracks (inbound, outbound and crossovers) beyond the platforms at Tallaght tram stop delineated by the existing white lines and by additional white hatched lines.

The Stopping Point is indicated by the Stopping Point sign at the end of the outbound platform (from Connolly).

Turnback Tracks are the tracks comprising the inbound and outbound tracks at Tallaght between the Crossing Area and the end of the line.

a) General Principles

- Only one tram is permitted to move at a time within the Crossing Area.
- Inbound movements (to Connolly) have priority.

- All outbound movements (from Connolly) shall be routed to the inbound (to Connolly) Turnback Track when it is available. Trams shall only be routed to the outbound Turnback Track under the direction of the CCR. The CCR shall then determine the sequence of movements.
- The maximum speed limit in the Crossing Area is 10 km/h.
- Reversing in the Crossing Area is not permitted except under instructions from the CCR.
- Except in an emergency, trams shall not be permitted to stop within the Crossing Area.

b) Outbound Movements (from Connolly)

All outbound movements shall:

- **Unless instructed by the CCR, always STOP and STAY** in the outbound platform (from Connolly) until the inbound Turnback Track and the Crossing Area are clear and any prior tram movement is at a stand in the inbound platform (to Connolly).
- Ensure that the correct route has been selected and this is indicated by the PPI. **In the event of the PPI not functioning, contact the CCR .**
- Proceed into the inbound Turnback Track if the Crossing Area and inbound Turnback Track are clear and it is safe to do so.

c) Inbound Movements (to Connolly)

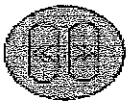
All inbound movements to Connolly shall:

- Not leave the inbound Turnback Track until the inbound platform (to Connolly) is clear.
- Ensure that the correct route has been selected and this is indicated by the PPI. **In the event of the PPI not functioning, contact the CCR.**
- Then proceed into the platform if it is clear and safe to do so.

5.7 Return to depot/ stabling tram

When a tram is to be taken out of service, the driver must check the tram to ensure that all passengers have left the tram.

- Tram must be washed and sanded when returning to the depot for the night. Driver must report to CCR when there is no staff present to sand the tram
- Stabling berth in the depot is defined by CCR, whether it's after a move or coming out of service into the depot.
- CCR will set the route as long as its not to an apron, then you may have to set points manually
- When you reach your stabling berth, do the following:
    - Don't stop on a set of points or under a Section Isolator
    - log of the tram of the AVLS and fully de-prep, unless instructed otherwise. If left prepped turn off all lights, passenger air con, drivers cab heating.

- Release door inhibitor PBLI 

- Confirm to CCR you have completed all the requirements, and leave the tram via single leaf door behind drivers cab locking it behind you if necessary.

5.8 Line speed

The following speed limits apply where no lower speed is dictated by a permanent or temporary speed sign, Safety Notices, CCR emergency message or by the circumstances:

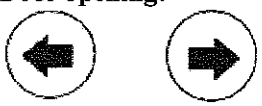
- The maximum speed allowed on any part of the network: 70km/h
- The maximum permitted speed on entering a platform in service or out of service: 25km/h
  - At stops that **DO NOT precede** a road crossing , Proceed with extreme caution through stop's 10 Kph Max (using chimes and horn as required)
  - At stops that **DO precede** a road crossing , stop and input RTS
- The maximum permitted speed on passing or entering a platform: 25 km/h.
- When approaching spring points: 15 km/h
- When pushing point: 5 km/h
- When on point to change track : 15km/h
- When coupled and pulling/pushing a tram: 20 km/h maximum on the line and 5 km/h in the depot
- Within the depot area: 10 km/h
- During shunting movement: 3 km/h

These are the maximum speeds allowed and are not target speeds. Drive following the Line of Sight principle, adapt the speed to the environment and the circumstance and reduce speed as necessary.

5.9 Doors operation

In service the door inhibition button should be selected at all time.

Door opening:



Selection

Authorisation

All Doors Open

Forced Door Closure

- Select *side selection* button
- Select *authorisation* button
- Open all doors in case of large number of passengers

Doors closure:

- Use cameras to confirm no passenger obstruction
- Ring the chimes and make a PA announcement in case of crowding
- Deselect *authorisation* button
- Wait until all doors are closed
- Deselect *side selection*
- Do not deselect *side selection* button until all doors are closed otherwise the obstacle detection is not operative (passengers may be trapped).

When travelling

- No *side selection* button is to be selected. Green button *door inhibition* can remain selected.

Doors control when changing cab at Terminus

- Open all doors
- Deactivate the cab (key to N), without deselecting the buttons
- Change cab
- Select *side selection* + *authorisation* button and *Door opening* button for platform side
- Activate the cab.

Do not activate the cab before the door selection otherwise doors will close automatically with no obstacle detection

5.10 Track works

- These rules are applied during works there is a risk that personnel or equipment could temporarily enter the zone.

All track work must be planned and authorised by the CCR.

Always use the chimes and horn if required to be sure that the workers are aware of the incoming tram and are in a safe position

In case of stop signs located on the track, stop and call the CCR.

If case of doubt regarding work on or near the track, for example unsafe procedure, always confirm with CCR if the works are authorised and are planned and performed according the work permit.

6 GENERALS RULES

6.1 Driving on slippery track

Facts:

- The track is more slippery in wet conditions than when dry
- light rain or dew can cause the track to be slippery
- Braking distances can increase by 50%

Driving technique:

- Adjust acceleration to avoid slippage on departure
- Avoid rapid movement of the Master Controller especially from traction to braking and vice versa
- Reduce speed, especially on streets, taking into account increased stopping distances
- Start to brake well in advance of stops and junctions
- Reduce entry speed at stops

6.2 Use of sand

- Tram sanding is automatic and synchronized by the tram systems
- Manual Sanding is for the most part unnecessary and ineffective.
- Manual sanding over points is prohibited
- Using sand whilst at a standstill is useless and may even increase slippage

6.3 Cab disciplines

The following rules apply in the cab:

- The door must be closed at all time when in motion
- A driver must not allow his/her attention be distracted by anyone in the cab
- Members of the public are not allowed in the cab
- No mobile phones , personal radios, earphones or handsets are allowed in the cab
- Persons allowed entry to the cab:
  - Operational staff whose duties require them to be there
  - Staff that are carrying out driver training, assessments, monitoring
  - Staff carrying out route familiarization
  - Third party issue with special permission and confirmed by the CCR
  - Any emergency services in order to carry out emergency duties
  - Maintenance staff for intervention
- Anyone causing a distraction to the driver can be asked to leave immediately
- Use of mobile phones whilst driving is forbidden unless in case of emergency

6.4 Use of Radio System (OP-002)

Rules:

- All communications have to go through the CCR
- Use of indecent / profound language and general chit chat is strictly forbidden.
- Speak slowly and clearly, be short and concise
- Any spelling done using phonetic alphabet

- Numerals to be said individually, the number 0 being "zero"
- Emergency calls have priority over Normal Call
- If CCR request you to standby, you must remain silent until you are called back by the CCR or unless absolutely necessary

Normal call:

- Ask the authorization to speak to CCR
- State **This is service XX** or **CSO XX to Control**
- Wait until CCR give you the **Go ahead** to communicate
- Give your staff number, service number (when relevant) and the nature of your call
- Ensure a correct understanding by the CCR
- Repeat message if necessary

Emergency calls:
An emergency call may be made from the tram radio system or mobile handset, this call has priority above all other calls

Use of the emergency call facility for any purpose other than a genuine Emergency is strictly forbidden

The message must include the following:

- **State clearly that <This is an Emergency call>**
- Provide your Staff ID
- The tram number or service number when relevant
- The location of the emergency
- The nature of the emergency
- Whether an Emergency De-energisation of the OCS is required
- Whether any of the emergency services are required
- Whether any other lines are blocked

The CCR must repeat all the details given by the user, to demonstrate that the call has been understood, and the caller must confirm his understanding.

If the caller omits to give any of the required details, the Traffic Supervisor must obtain this information from the caller.

6.5 CCR group Call:

- The CCR can communicate with all the radio users simultaneously in a group call.
- A group call will be used to deliver specific information or instructions.
- At the end of the call, the CCR will state whether or not a call acknowledgement is required from the users addressed.

6.6 Tram Protection Targets and Tags

Tram protection targets and tags are placed in both tram cabs, they indicate if specific restriction apply to the tram, they are of the following type:

- **"DO NOT MOVE"** warning board will be attached to each driver's cab by the tram maintainer. The tram cannot be moved unless authorised specifically by the CCR.

- **"NOT FIT FOR SERVICE"** warning board will be attached to each driver's cab by the tram maintainer. The tram cannot be used in passenger service unless specifically instructed by the CCR.

- **"FIT FOR DEPOT MOVING"** warning board will be attached to each driver's cab by the tram maintainer. The tram can be moved only in the depot and cannot be used in passenger service unless specifically instructed by the CCR

Never remove the warning board, only the person who has attached their personal tag has authority to remove it.

6.7 Out-Stabled Trams (OP-006)

Trams must not be out-stabled on any line overnight unless absolutely necessary and authorized by CCR. The following apply;

- make sure the tram is not blocking any roads, entrances, walkways
- De-prep the tram if instructed
- If tram is left unattended at any time, the Drivers Keys must be removed from both ends and return to CCR and all doors locked
- If a presence on board is arranged (staff member, security) ensure they have a communication method with CCR and a tram access key.
- Trams out-stabled on the line must not be moved by the driver unless clearly instructed by the CCR

6.8 Tram movements in the depot, workshop and sander (OP-009)

Rules:

- Depot move request are issued by the CCR or ALSTOM maintenance via CCR
- Depot moves are performed only when authorized by the CCR
- Before conducting any move ,always confirm it with CCR

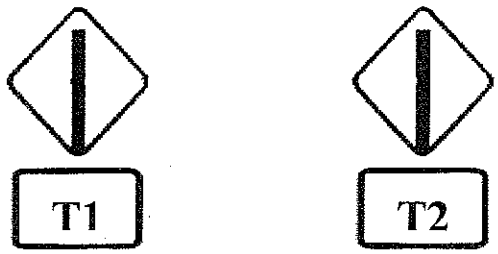
Movements into/out of the workshop:

- When taking the tram inside or outside the workshop always check the following;
    - Power is on, **red light illuminated.**
    - tram is safe to move
    - all panels secure,
    - bodycatcher is raised,
    - no scotches under wheels,
    - no person is working on or near the tram,
    - no tags indicating it cannot be moved,
    - it is not coupled to another tram,
    - **Crane is not in the way.**
- You must then, if acceptable to move sound the chimes and move off not exceeding 5km/h checking around you at all times.

- As you enter the workshops, stop before the door and chime and then move if safe to do so not exceeding 5km/h
- you exit the workshops, stop before the door and chime and then move if safe to do so not exceeding 5km/h Always chime when visibility is reduced, ie passing through wash, at a depot walkway
- If chimes are not operational the horn may be used.

Turning trams in depots

- Confirm that the route is clear and set with CCR prior departure
- Stopping on points is forbidden unless in emergency or instructed to do so
- Stop on authorized and designated space: T1 for one tram, T2 for coupled tram



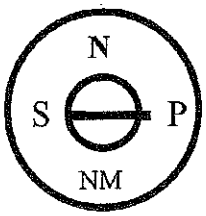
- Remember if unsure of the movement stop and ask, do not take chances

6.9 Sand plant

- When moving through sand shed the speed must be lower than 5 Km/h
- When entering an exiting, ring the chimes as the visibility is restricted

6.10 Wash plant

- When entering the wash, you must stop and close all windows including drivers hatch in both cabs
- Select shunt mode with DK, speed restriction of 3kph
- Then move towards the wash and brake the first electronic beam
- The traffic light should go red. Select your required program by exiting the tram and pushing the number you want, or ask CCR to set it,
- On receiving a green light, drive through in shunt mode, not stopping until the whole tram has cleared the wash.



When exiting the wash, ring the chimes as the visibility is restricted
If you stop during the wash, it will stop automatically and will not start again until reset by CCR

6.11 Speed Restrictions (OP-015)

Speed restrictions will be instructed by issue of a safety notice and specific signage in the area concerned, unless in the event of an Emergency

IN the event of an Emergency Speed Restriction CCR must make a group call to inform all driver of the location of the ESR and speed applicable, and display in the late notice case.

Each driver must acknowledge individually by radio to confirm their understanding of the speed restriction by repeating the location and speed limitation.

The driver must communicate the location and the speed limitation when passing on the tram to another driver.

6.12 Single line working (OP-024)

When a section of track is used as a single line for trams operating in both directions, a pilot will be designated:

- Tram can proceed only when authorised to do so by the designated Pilot on board (except when an assisting tram is to enter the section to assist a failed tram on which the Pilot is travelling, in which case the driver will be authorised by the Traffic Supervisor)
- Observe instructions given by the Pilot and be sure of which track is being used for single line working
- Observe any speed restriction in particular speed over the points.

6.13 Points and Crossing area

Points may be controlled remotely, manually or switched by trailing through them.

- If there is a point's position indicator, this must be used for checking the status of the points.
- If the PPI is not working, or the visibility is poor or if there is no PPI, you must check the points visually
- Stopping or reversing on points is forbidden unless in an emergency and authorized by the CCR, under no circumstances reverse over spring points.
- When manually setting the points, check that the point's blades are properly closed against the rail and sufficient distance from the opposite rail. Points must not be switched when a tram is moving towards the points or when a tram is over the points.

6.14 Procedure to use Emergency crossover (OP-018)

- Wait for the CCR authorisation and confirmation that the track is clear
- Confirm that the track is clear
- Set the first facing points to change track, check prior to movement.
- Move the tram at a speed no faster than 5kph and push through the second point (trailing point)inform the CCR when move is completed

The CCR will make arrangements for following Driver to reset the points or the following tram to trail through the points at a speed no faster than 5kph.

Any difficulty setting point contact CCR.

7 FAULT AND DEGRADED OPERATION MANAGEMENT

7.1 System Failure

All staff are required to report to CCR anything that disrupts, deviates from or affects the normal service or passenger safety.

A driver must immediately inform CCR if, as a result of a disruption, he/she has to leave the driver's cab or if the tram is expected to be delayed by more than three minutes.

Keep passengers informed via PA announcements.

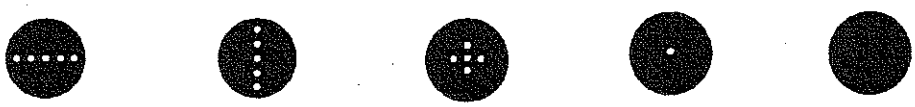
Immediately report any accident, fire, the appearance of smoke, personal injury, or an installation failure that could threaten tramway safety.

7.1.1 Infrastructure damage (OP-017)

- Stop as soon as possible when it is safe to do so
- Put the hazard light on
- Call CCR and inform them of the exact location and direction of travel
- Clearly state the damage
    - Broken or Defective Rails
    - OCS pole damaged
    - OCS sagging
    - Bridge collision
- Assess if both lines are affected
- Assess if Emergency de-energisation is required
- CCR to contact maintenance and advice driver of the procedure to follow
-

7.1.2 Traffic light & Tramway signalling failure Procedure (OP-021)

If the tram lights are blank confirm that the car traffic lights are also blank before applying rules of the road



Stop | Proceed if safe to do | STOP unless unsafe to do | Stop Contact CCR for further

Actions to be taken when all signals fail at a junction, ie tram and road traffic signals are of: Rules of the road apply

- Call CCR to inform them of junction number and status
- Obey all hand signals given by Garda or relevant personnel if present

Otherwise

- Use chimes, horn , and hazard lights when moving off and proceed if it is safe to do so at a cautious speed
- Ensure safety at all times
- CCR to make a group call to warn drivers and this must be acknowledged by all drivers
- If unable to cross junction, contact CCR

Actions to be taken when tram signals fail at a junction (permanent stop aspect or signal down and road traffic still operative.

- Call CCR to inform them
- CCR to make a group call to warn drivers and must be acknowledged
- Relevant personnel or Gardai must be requested to attend in order to direct trams through the junction
- CCR will keep drivers updated on the situation

7.1.3 Failure of the Radio System:

- In the event of an entire radio system failure the driver must use the EHP's as a back up at the stops
- If unable to contact CCR then a driver may use a mobile phone or public phone when the tram is at standstill and if safe to do so,

7.1.4 Failure of Points & Point Position Indicators (PPI's)

Unless informed by the CCR or Notice, when a point cannot be changed from the tram or manually, or when a PPI displays single dot or is blank,

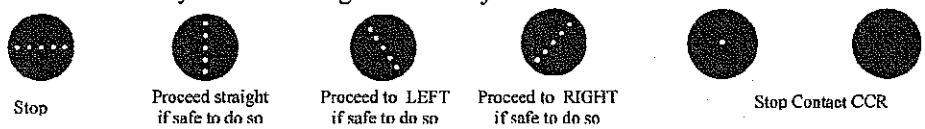
Stop, position of the points not detected, contact CCR Visual Inspection required

- Stop the tram
- switch on the tram hazard lights
- Call the CCR, giving details of
  - The location of the point
  - The failure /indication on PPI
- Await CCR instruction

- When attempting to set the route manually check for any obstruction between blade and fixed rail **(any obstruction found should only be removed when the points have been immobilised, and never by hand).** In the event of the points being stiff, seek further assistance.
- When proceeding to a blank PPI or PPI displaying a single dot make a close visual inspection to ensure that the points are fitting correctly and are set in the required direction

7.1.5 Failure of a tramway only signal (OP-022)

Tramway only signals are only for tramway use, they are located in the depot area and in the delta. They are not the signals at road junctions.

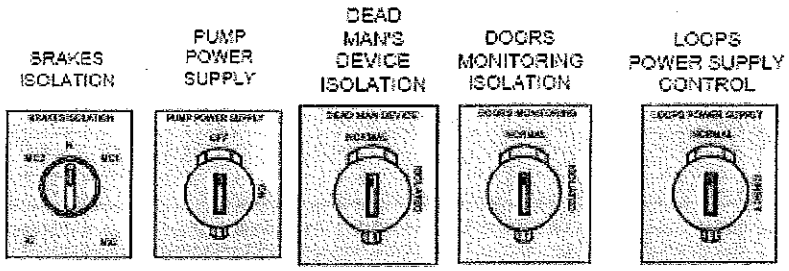


If a tramway only signal shows the "Stop" aspect for an unusually long period (Tramway signals showing an incorrect, incomplete or unclear signal or without any display must be treated as if displaying "Stop"):

- Put the hazard light on
- Call CCR and inform them of the exact location and indication
- Only CCR can give authorisation to pass the signal, do not proceed until authorisation has been received from CCR
- CCR will make sure that the route is clear oncoming trams

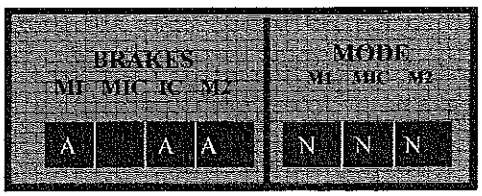
7.2 Tram failure

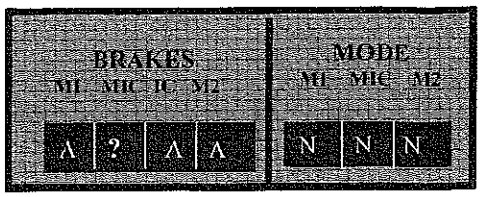
Sealed switches cannot be broken without prior consent from CCR. Broken seals must to be reported to the CCR immediately



Driving with the vigilance device seal broken unaccompanied is prohibited (unless for a short move in the event of an emergency such as threat to life, or under specific Garda instruction)

7.2.1 Brake failure indicated on TCMS





- Contact CCR, and advice brake status as shown on the TCMS
- Attempt to De-prep & Re-prep the tram to clear the fault, allow 60 second before isolating battery and a further 90 Sec's - Time required for tram to perform self analysis test
- If the brake failure is still present seek authorization from CCR to start a brake isolation procedure
- Detrain all passengers
- On the brake isolation switch select the affected bogie
- Remove seal and turn Pump Power Supply to on
- Wait 30s, time to pump off & isolate selected brakes, pump switch to remain in on position
- **On the TCMS**
    - **Brake Status** will show I for Isolated
    - **Bogie Isolated** symbol will appear
    - **Speed restriction** (normally 40 kph)

- **Red Brake Fault** indicator light will be illuminated
- Tram must return to depot Out of Service
- Observe on TCMS while moving that other brakes release

7.2.2 Passenger Door Operations with Technical Faults

- Open doors on the affected side and attempt to close (2 or 3 times). In the event of crowding , PA announcement should be made asking passengers to stand clear

If the fault clears on TCMS, continue to operate normally

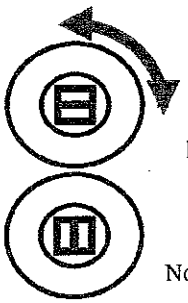
- If the fault / failure does not clear, attempt to use the Force Door Closure Button

In the event that the forced door closure needs to be used, be aware that there is no obstacle detection which may injure passengers

- make announcement to request passenger to stay clear of the doors,
- check with the camera that the door is clear
- press the Force Door closure if safe to do so,

- If fault clears on TCMS, continue to operate normally

- **If the fault/failure does not clear, a manual reset is required**



- Go to the affected Door and reset door with door key and turn 90 degree Anti-clockwise and hold until the door stops clicking, 5 sec approx.

- If the fault clears continue to operate normally otherwise
  - pull Emergency Handle and cover down to release Door
  - push door open completely,
  - Reset door with door key and turn 90 degree Anti-clockwise and hold until door closes and resets

- **If the fault/failure does not clear, door has to be locked Out of service**
  - Close the door manually
  - Lock the door
  - Place sticker to notify the public.

When a door is manually locked but still seen as open by the TCMS, the traction is inhibited, in that case the doors controls has to be bypassed.

- Seek Authorisation from CCR to start a Door isolation procedure
- De-tram passengers
- Break Door Isolation seal and switch to isolate doors, this should regain traction.
- Return to depot with no passengers

7.2.3 Safety Loop failure

The safety loop can be isolated by breaking the seal only under CCR authorization:

- Request CCR authorization to achieve a Safety Loop isolation procedure.
- Detrain all passengers
- Brake the seal
- Return to depot, the speed will be automatically limited up to 25 km/h.

7.2.4 Vigilance device failure

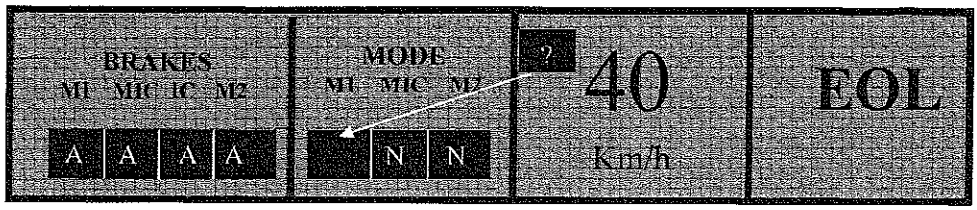
The vigilance device can only be isolated by breaking the seal and only under CCR authorization. This action has to be recorded in the TED. Unless in exceptional circumstances - where there is a direct threat to person the tram cannot be moved without a second competent person.

In of the event of failure of the vigilance device:

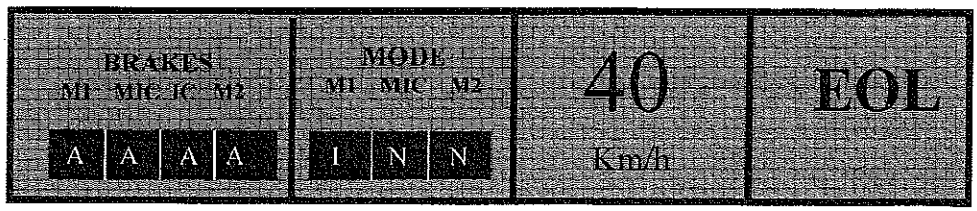
- Request CCR authorization to Isolate the vigilance device
- Detrain all passengers
- Brake the seal
- Wait for a competent second person before commencing movement
    - (Spare driver, CSO, traffic supervisor, operation staff, maintenance available to act as second person)
- confirm with the second person how to use the Safety Brake (mushroom)

7.2.5 TBCU failure

In case of TBCU failure, instruction will be provided by the CCR on how to deal with the failure. With CCR agreement follows the instructions:



- Contact CCR
- Report to CCR exactly what fault has occurred and the symbols on the TCMS
- If the tram status is? Or blank, De-prep & Re-prep tram
- Wait for Tram to reset and to perform self analysis test (90seconds)
- Re-check Mode Status on TCMS screen
- If the fault clears, continue to operate normally (checking Mode status regularly)
- If a failure is still apparent TCMS will still indicate fault



- If Mode Status shows I, Speed restriction will be visible on TCMS (normally 40 kph) Deprep reprep will not clear this fault. Follow CCR instruction.

Overtorque is available on the 301; use is only effective on gradients and is automatically limited to 2 minutes. This can only be used twice.

7.3 Degraded Operation

7.3.1 Wrong directional moves (OP-031)

Wrong Direction Moves

- Wrong direction moves must be authorised by the CCR
- Change cab to be in the leading cab
- Check the setting of any points
- Trams making wrong directional moves on sections not regulated by signals must stop at all crossings and contact CCR.
- Before starting the movement, the CCR must confirm that the section is free from trams

- **reversing with no driver in the leading cab is strictly forbidden unless**
    - **an authorised person on the ground to lead the movement and or**
    - **an authorised person in the leading cab to lead the movement**

- **Wrong directional moves on street sections are only authorised under the control of the Garda or with a special arrangement under CCR control. Short wrong directional move required to catch up a loop are authorised with no assistance, nevertheless change of cab is mandatory. The driver may proceed using his/her own judgement. CCR must be informed before any such move.**

7.3.2 Over Running of Tram stops (OP-010)

Complete Overrun of a Platform:

- **Off street Section**
- Stop the tram
- Call CCR to inform them of the situation
- Inform CCR of the extent of overrun, i.e. how far past the stop
- Inform CCR if you have passed a signal, PPI, set of points.
- CCR will then take action to stop all trams near the area
- CCR may instruct you to change ends and bring the tram back to the stop
- Confirm to CCR when the move has been completed and CCR will instruct all stationary trams to resume movement

- **On street or segregated on street Section**
- Wrong directional moves on street sections are only permitted under the control of the Gardai (special arrangements when coupling trams may take place)
- A tram that completely overruns a stop on a street section must continue to the next stop, obeying all signals. In that case you must call CCR and also inform your passengers of the error, and how they can return to that stop.

Partial Overrun of a Platform:

- Stop the tram
- Call CCR to inform them of the situation
- Inform CCR of the extent of overrun, i.e. how far past the stop
- Inform CCR if you have passed a signal, PPI, set of points.
- CCR will then take action to stop all trams near the area
- CCR may instruct you to open manually the rear door to allow passengers to detrain at the stop or may instruct you to change ends and bring the tram back to the stop

7.3.3 Adverse weather conditions (OP-037)

In the event of adverse weather conditions driving must be adapted:

- any unusual amount of water on the system has to be reported to CCR
- speed has to be reduced when crossing large areas of surface water to 5 km/h
- any unusual amount of snow on the system has to be reported
- speed has to be adapted if slippy condition and lack of visibility to 5 km/h
- in case of high wind, remain vigilant of blowing object and in particular to the OCS
- **Poor visibility, i.e. snow, fog heavy rain, sound chimes and horn as required**
- Drivers should slow down and always be alert for signals, PPIs, and any persons or objects on the system

7.3.4 Trespassing by the public in depot areas and restricted areas

Access to the depot and section signalled by the relevant signage (as segregated track) is forbidden to any member of the public.

- trespass in both depots must be reported to CCR
- Any member of the public who inadvertently gets brought into the depot or persons entering the depot should be reported to CCR and arrangements to be safely escorted from the depot
- Caution must be observed when approaching an area where trespassers have been observed.

7.3.5 Over Running of RTS Loops(OP-011)

If the tram is stopped after a traffic light controller, you should:

- call CCR and inform them of the exact location, junction number and direction of travel
- Put the hazard light on
- **if you can see the tram signal**
  - CCR will then if possible input a RTS demand via the junction controller in CCR
  - If you get the proceed then go if safe to do so
  - If it does not appear in your favor, call CCR again
  - If this fails then Gardai assistance is required
- **if you cannot see the tram signal**
  - contact CCR the best procedure to follow
    - change cabs and bring the tram back to the loop
    - or pass under CCR control of the tram light

- CCR must confirm that the following tram has stopped
- You must confirm that you are not over or just past a set of points and move only if clear to move back

7.3.6 Signal passed at stop without authorisation (OP-023)

If a signal is passed at stop, the driver must:

- Stop as soon as possible when it is safe to do so
- Put the hazard light on
- Contact CCR or team leader and inform of the exact location, junction number and direction, of the Signal passed at Stop i.e. (A19 outbound)
- **CCR must** re-confirm the service number and staff id number
- incident must be recorded in TED
- CCR will advise that further action will be taken

7.3.7 Passenger Door Operations on Non-Platform Side (OP-043)

- Wrong opening must be reported to CCR
- Driver must check and inform the CCR
  - if passengers detrain on the wrong side,
  - if passengers fell on the track
  - if passenger walk on the track
- CCR will dispatch emergency services and alert crossing tram if required

7.3.8 Central Control Room Evacuation (OP-056)

In the event of the CCR evacuation, CCR should make a general call to all drivers:

- Communications have to be reduced to a minimum until reoccupation of the control room.
- No tram may the enter depot or use the Emergency Crossovers without CCR approval

7.4 Incident in operation

7.4.1 Road vehicles or objects blocking the track (OP-025)

- Approach the area with extreme caution at reduced speed
- Sound the warning bell or horn if required
- Slow down and stop before the obstruction
- Put the hazard lights on
- Call CCR and inform them of the exact location and direction of travel
- Report whether the object can be removed safely by the driver, in that case inform before leaving the cab and when returning
- If it is not possible to remove the object safely, CCR will contact the relevant people to remove the object as soon as possible
- Alight by means of the driver access door

7.4.2 Overcrowding at Tramstops or street (OP-027)

- Inform the CCR
- Approach the area with extreme caution at a reduced speed
- Sound the warning bell or horn, as necessary
- Be prepared to stop immediately should the path of the tram become obstructed and not move off again until it is safe to do so
- Pass on information to passengers and ask for clearance from the doors
- Use PA to request passengers **Stand clear of the doors, immediate closure** before starting the closure sequence
- Inform passenger as required

7.4.3 Overcrowding on Trams (OP-027):

- Inform the CCR
- Drive smoothly to avoid unnecessary jerks
- Make an internal PA advising the passengers the frequency of the following trams
- Open all doors and make PA <**Stand clear of the doors, immediate closure**> announcement at door closure
- Provide sufficient time at tramstops to ensure that passengers wishing to alight have sufficient time to do so

7.4.4 Left Luggage/Lost Property (OP-040)

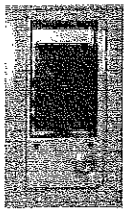
- Inform the CCR
- Bring back the lost property to the depot for the care of the call center

7.4.5 Passengers on Tram at Terminus or last stop (OP-041)

- When a tram arrives at the terminus or last stop before entering the depot, an announcement must be made that this is the last stop and all passengers must alight the tram
- The driver must then make a visual check through the tram to see if it clear
- If it is clear the driver should close the doors in the normal way
- The driver should then leave his cab and walk through the tram making a visual check of all seats to ensure tram is clear
- Any lost property should be reported and brought back to the depot
- Any persons refusing to leave the tram, must be reported to CCR and follow any given instructions
- If through an oversight, a passenger is carried into the depot, the driver must report it to CCR. When tram is stabled CCR will arrange to have the passenger taken off the premises safely

7.5 Incident /accident

7.5.1 Emergency Egress Handle



When pulled, the door will be released and an Emergency Brake occurs in the following cases:

- Immediately within 40 meters of leaving a stop
- Immediately if the tram is at stop and same side selected
- Otherwise after 60 seconds if no side or the same side is selected

Note: if the opposite side is selected, the door will not release. Driving with a side selected is forbidden.

Instruction if not at a stop:

- Stop as soon as possible on a safe location
  - Clear of a junction
  - Do not attempt to cross another junction
  - Do not accelerate to full line speed
  - Reach the next stop only if sufficient time to do so
- Switch on the Hazard lights
- Call the CCR
- Make an announcement to the passengers
- Exit the cab, close the cab door and assess the situation
- Reset the door (manually open the door fully, turn the square key to free the door)
- Inform the CCR and await instruction

7.5.2 Broken glass

- Stop as soon as possible when it is safe to do so
- Put the hazard light on
- Call CCR by **Emergency Call** and inform them of the exact location, direction of travel,
- Inform the tram passenger
- Leave the cab and assess the situation, check that nobody is injured, check if there is an immediate danger and if so, required passengers to clear the area
- Inform CCR and await instruction, either detraining passengers or continue with or without CSO assistance

7.5.3 Disturbance on Board a Tram (OP-028)

- Call CCR and inform of situation
- If safe to do so and with permission from CCR, stop the tram and open all doors to allow problem clear,
- Continue to next stop and release doors on platform side
- CCR should call the Garda if necessary
- Deploy any CSOs to the area to support passengers
- Drivers are not required to leave the cab unless absolutely necessary
- Do not keep the doors closed if it puts passengers at risk

7.5.4 Tram hitting large animals (OP-036)

- Stop as soon as possible when it is safe to do so
- Put the hazard light on
- Call CCR and inform them of the exact location and direction of travel
- Assess whether it is safe to continue, if needed ask CCR for VMC/IMC attendance
- Check the body catcher
- CCR to inform relevant authorities (DSPCA)

7.5.5 Persons taken Ill/Injured on tram (OP-042)

Staff who observe anyone taken ill/ injured on the system should call CCR immediately

- Call the CCR in Emergency
- Inform CCR of the exact location and direction of travel and the nature of the emergency
- Stop where instructed by the CCR, Emergency Services may require the tram at a specific stop
- Put the hazard light on
- Inform the passengers
- When relevant take all necessary details and witness names and addresses.
- Keep inform CCR until arrival of the emergency services
- If the person taken ill is a pedestrian on street running section and they require an ambulance, a member of staff should attend until the ambulance has departed.
- Keep CCR informed

7.5.6 Accidents with Vehicle or Pedestrians (OP-012)

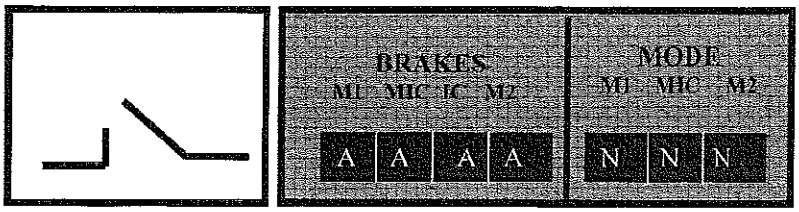
- Stop as soon as possible
- Put the hazard light on
- Call CCR by **Emergency Call** and inform them of the exact location, junction number and direction of travel
- Unless life threatening do not open the doors,
- Inform the passengers
- If doors have to be opened consult CCR to advise what side is safest

- Arrange detrainment when authorized by CCR, seek assistance of any other staff in the area.
- Remain on site until Emergency Service or Incident Officer arrival unless instructed by CCR

Note: In the case of a life threatening situation, ie a fire on board, arrange an Emergency Evacuation and get the passengers off as quickly as possible and as safely as possible.

7.5.7 Derailment/Dewirement (OP-019, OP-020)

- Stop as soon as possible when it is safe to do so
- Put the hazard light on
- Apply the Safety Brake by pushing the red mushroom , ensure MCB is open.



- Call CCR by **Emergency Call,** state the emergency and inform them of the exact location, junction number and direction of travel
- Inform the passenger and assess if passengers are injured
- Assess need for Emergency services
- Assess the damage, lower the pantograph if possible (if the pantograph has dewired do not attempt to lower it)
- Prepare detrainment and detrain the tram after authorization of the CCR
- Wait on the site for the incident officer

7.5.8 Detrainment (OP-026)

Detrainment of the tram means when passengers on a tram have to alight orderly because of an accident, mishap or for some other reason which does not put the passengers in immediate danger. Detrainment is performed under the control of the CCR

At a stop

- Stop at the stop
- Put the hazard light on
- Call CCR by **Emergency Call** and ask for detrainment authorization
- Inform the passengers of the evacuation
- Open all the doors on the stop side
- Check visually that there is nobody in the tram, close all doors
- Walk through the tram to ensure it is fully evacuated
- Evacuate remaining person by unlocking one door mechanically
- Inform CCR on completion of the evacuation

Not at a stop

- If not already stopped, stop the tram as soon as possible, in a place where detrainment can take place as safely as possible,
- Turn on hazard lights,
- Contact CCR to advise of the situation, define the best detrainment direction and await permission from CCR
    - Toward a pedestrian footpath by the shortest and safest route
    - toward left hand side of a tram in the direction of travel if a foot path is adjacent to the track
    - through the 6 foot and crossing the track when on coming tram has stopped if there is no foot path adjacent to the track.
    - Walking along the track in the cess or trough route ,otherwise to the nearest exit
    - Organize collection by other tram
- Keep the passengers informed at regular intervals
- CCR will deploy any available staff i.e. CSOs, Gardai if necessary to assist, if Gardai are present, act on their instructions
- When permission is given,
    - make a PA announcement as to the side on which the doors are to be opened
    - advise passengers of arrangements to get them to their destination
    - Detrain safely, i.e. observing approaching traffic, raised rails etc.
- Secure the area: place warning triangle on the road to warn any oncoming traffic, isolation of the overhead in case of potential OCS contact, in case of detrainment through the 6 foot, confirm with the CCR that crossing tram are stopped
- Inform CCR once evacuation finished and all passengers have left the track area

7.5.9 Emergency evacuation

Emergency evacuation of the tram means when passengers on a tram have to alight in an emergency due to immediate life threatening danger so where nothing should delay the evacuation.

- If not already stopped, stop the tram as soon as possible, in a place where detrainment can take place as safely as possible,
- Turn on hazard lights,
- Inform the passengers and the CCR of the Emergency Evacuation, do not delay by providing details
- Release or open the doors on the safest side of the tram
- Help passengers and evacuate yourself
- Inform CCR as soon as possible regarding the situation by any communication method available

7.5.10 Fire on the tram

Evacuation of the tram should be conducted immediately unless it is evident that the fire can quickly be put out using the available fire extinguisher

- Assess the fire, assess if the tram can be brought to the next stop **If in doubt, organize an Emergency Evacuation**

- **If the fire is minor and can easily be controlled**
  - Call CCR by **Emergency Call** and ask for detrainment authorization
  - Put the hazard lights on
  - Inform the passengers of the evacuation
  - Open all the doors on the stop side
  - Attack the fire with the fire extinguisher **if it is safe to do so**

- **If the fire is major, heavy smoke**
  - Stop as soon as possible when it is safe to do so
  - Put the hazard light on
  - Organize an **Emergency evacuation**
  - **Call the CCR**
  - **If possible De prep the tram and leave it**

7.6 Recovery of Failed Trams (OP-013)

Scope:

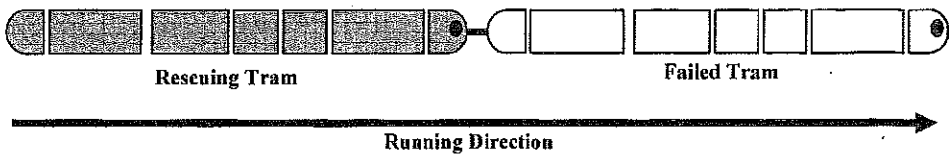
- This procedure described the operation to recover a Failed Tram by a Rescuing tram.
- This operation has to be agreed by the CCR prior to commencement
- The driver of the rescuing tram has to organize communication with the CCR

General rules

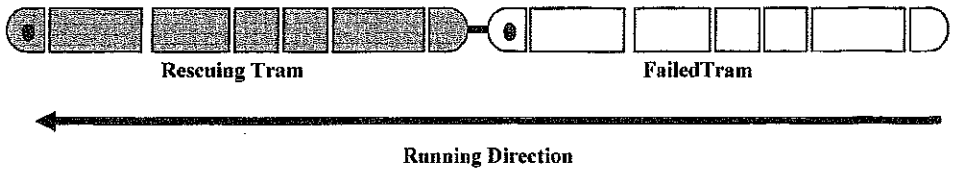
The recovery shall be allowed if the following conditions are fulfilled:

- Prior to commencing this procedure
- The cab to cab communication is in operation
- The safety brake can be activated from the leading cab
- The bell or horn of the leading cab is in operation
- During the movement one driver has to be in the leading cab
- Passengers have been detrained

Pushing



Pulling



Procedure

Failed Tram preparation While waiting for the rescuing tram, start to prepare the tram for coupling, except when the tram is on street section as old Naas road. In that case first secure a space for the rescuing tram.

- Put the hazard lights
- In street section put the warning triangle on the street, and do not forgot to remove any equipment prior to depart.

Important: If possible de-prep the failed tram without battery isolation just before the electrical connection

1. Apply the safety brake
2. Open the front lower body skirts and place it inside the saloon of the tram
3. Remove the pins
4. Pull the half-bar completely and rotate it
5. **Lock the half bar at their rear side using the pins.**

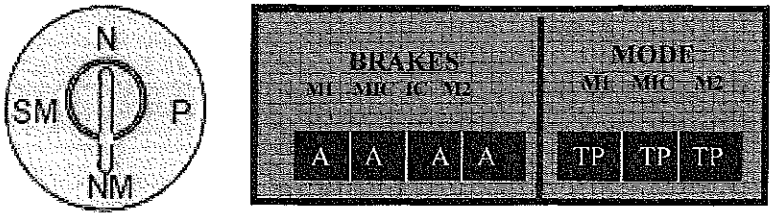
Rescuing Tram preparation
Stop the rescuing tram at less than 3 meters of the failed one
Redo operation 2 to 5 on rescuing tram without rotating the halfbar

Coupling mechanical and electrical

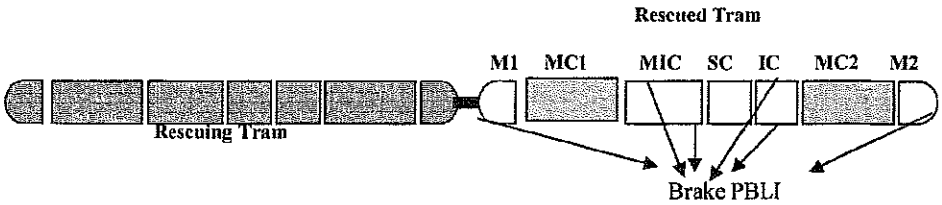
6. Approach the rescuing tram unit to the failed tram unit to a distance of about 1.20 m 0.20 m, push the safety brake
7. Put in position the two half-bars, assemble them by engaging and securing one of the two pins
8. From the Rescuing tram engage reverse movement by pressing the reverse button on drivers console until the two half-bar can be completely assembled together. The rear of the tram has to be clear, driver of
   the failed tram has to go in the rear cab to check during the move (mandatory on street section)
9. Perform complete assembly of the two half-bars by engaging and securing the second pins
10. Set the rescuing tram selector to the "N" position

De prep the failed tram if not already done before achieving the electrical coupling

11. Connect the electrical cable to both vehicles, pass it underneath the mechanical coupling and secure it by means of one pin.
12. Set the driving selector of the forward running motor car of the rescuing tram unit to the "NM" position and check that the screen indicate that the operation mode is on TP



13. **Driver of failed tram to check that the brakes on each bogie have pumped off by visually inspecting the PBLI on each bogie (3 bogies 301 , 4 bogies 401)**

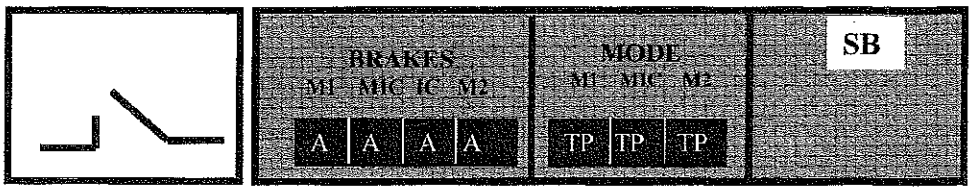


Failed tram driver has to check the pins of the rescuing tram are correctly in place and vice versa, rescuing tram driver has to check the pins of the failed tram are in place.

Test: Test to be performed in the cab being used for running.
These tests are mandatory, in case of failure of one test inform CCR immediately for advice and authorization to continue.
Each driver will check their tram, the front cab must have the headlights on and the rear cab the rear break lights on.

14. **Perform the following test from both trams:**
    a. cab-to-cab communications (if not operating, use back-to-back radios)
    b. bell and horn
    c. warning light (if not put light at the rear of the convoy)

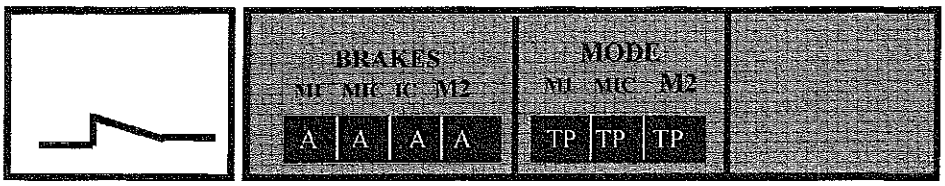
15. **In the rescuing tram apply the Safety Brake by pushing the red mushroom,**
    a. Ensure on the rescuing tram TCMS screen that the MCB is open and SB is indicated.



Failed tram driver visual check around the failed tram that all the PBLI lights are off

In the rescuing tram release the Safety Brake mushroom,

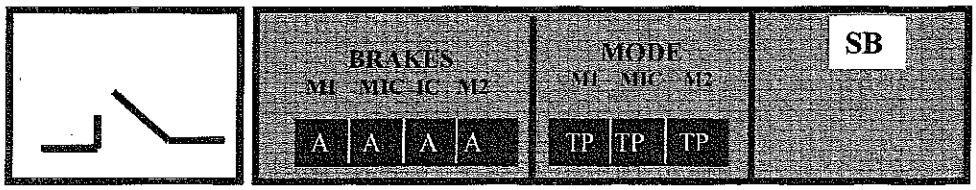
b. Ensure on the rescuing tram TCMS screen that the MCB is closed and SB disappears.



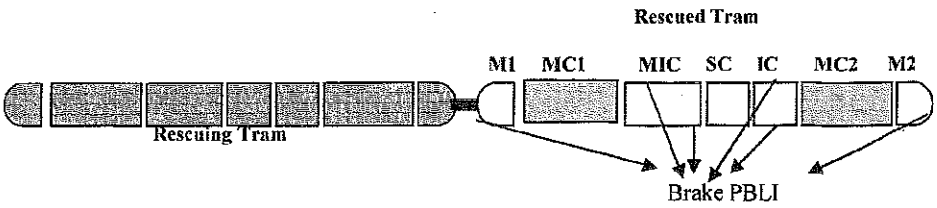
c. failed tram driver visually check around the failed tram that all the PBLI lights are on, push the button of the PBLI does not come on (Note: only the PBLI of the failed tram come on)

16. In the failed tram apply the Safety Brake by pushing the red mushroom

a. Ensure on the rescuing tram TCMS screen that the MCB is open and SB is indicated.

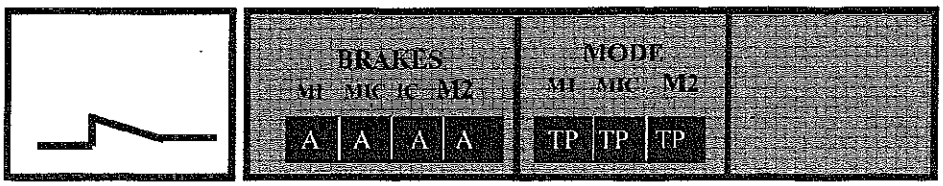


b. Failed tram driver visually check around the failed tram that all the PBLI lights are off



17. In the failed tram Release the Safety Brake mushroom

a. Ensure on the rescuing tram TCMS screen that the MCB is closed and SB disappears



b. failed tram driver visually check around the failed tram that all the PBLI light come on, push the button if not (Note: only the PBLI of the failed tram come on)

In the event that the PBLI on any of the bogies does not come on, contact CCR and await further instruction, do not attempt to move the tram as the brakes may still be applied

Important: During TP , the only operational brake on the failed tram unit is the RED MUSHROOM .
Prior to commencing any movement ensure that all bodycatchers are raised

Towing

- Rescuing Tram controls the movement and the braking
- Failed tram driver can apply a Safety Brake by pushing the Red mushroom

Pushing

- Failed Tram controls the movement using the cab to cab intercom and if necessary can apply the Safety Brake on both trams
- Rescuing Tram follows the instruction of the Failed tram, if necessary he can apply a Safety Brake to by pushing the Red mushroom

During movements

- Authority to proceed must be requested from CCR.
- continual radio communications must be maintained through a running commentary between both drivers. In the event of a breakdown in communications the movement must be stopped.
- Emergency stops have to be performed by pushing the Emergency Mushroom
- Particular attention must be considered by the driver of the "leading" vehicle of the extended braking distances required, and of the time needed for failed vehicles to clear junctions

The maximum speed for the movement is:

- 20kph or less in street section
- Within the depot= 5kph
- Proceed with extreme care in city or pedestrian area, reduce speed

Uncoupling

Performed coupling operation by carrying out the coupling in reverse:

- If required secure the failed tram with chocks
- undo electrical coupling
- undo mechanical coupling

Comments:

COMPETENCE ASSESSMENT FOR DRIVERS
STAFF MANAGEMENT SM 005
VEOLIA TRANSPORT LUAS LIGHT RAIL LIMITED

Changes record

Date	Issue status	Details	Editor	Approving
21/04/04	1	First issue	BF	BB
31/07/07	2	Full change Update audit 26/04/06	BF	PS

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1.2 Scope 1
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1 Purpose

To provide an effective method of demonstrating the competence of drivers which is consistent and can be audited as required and to assist drivers to achieve the standards of safety required of relevant legislation and best practice.

1.1 Introduction

VEOLIA in accordance with the provisions of the Railway Safety Act 2005 have a responsibility to ensure that tram drivers are fit and competent to undertake such work.

1.2 Scope

This procedure applies to all staff in possession of a tram-driving certificate or candidate employed by VEOLIA.

1.3 Definitions

- **Competence** The ability to perform activities to a pre-determined standard.

- **Competence standard** Consisting of units, elements and performance criteria stating what a driver must be able to do and how well in order to achieve competence. In addition how the required evidence will be collected and judged.

- **Candidate** Any person progressing toward or possessing competence.
- **Elements of competence** Describes what a driver is expected to do within a particular aspect of the job requirements.
- **Units of competence** A grouping of individual elements of competence, covering part of a persons job
- **Assessment** The process by which a driver is judged against the competence standards in order to determine competence.
- **Assessor** A person competent to assess the competence of candidates.
- **Verification** The process by which the quality of the assessment processes is independently assured.
- **Core safety critical elements** Elements as identified within this procedure relating to the competence standards for tram driving.

2 Assessment Framework

The Operations Manager is responsible for the co-ordination and implementation of the driver Competency Management System. Key features include:

- A team of safety critical assessors who carry out assessments against the competency standards detailed within this procedure.
- Safety critical assessment checklists used to gather and record evidence of competence against a pre- determined scope identified in this procedure.
- Safety critical checklists, which identify specific skill and knowledge that must be demonstrated by the candidate in order to demonstrate competence.(Appendix A)
- Each driver is assessed on a biennial basis against all of the standards Identified with a practical assessment of tram handling carried out once per annum as a minimum.
- An internal verification process ensures the integrity and consistency of the assessment process ensuring that it is of sufficient depth and quality.

3 Structure of Full Competence Assessments

- Evidence of assessment is collected by the use of natural observation and questioning candidates in the workplace during normal working conditions, which have been planned for assessment purposes.

The evidence collection process takes place in the following sequence:

- A candidate is identified as being due for assessment.
- The assessor must ensure that the candidate has received any necessary training and that an assessment plan has been developed and agreed with the candidate.
- The candidate is briefed on the assessment process. The assessor has the responsibility of ensuring that the candidate has a full understanding of what is to take place in respect of each element identified for assessment.
- The candidate is accompanied during the working of a drivers turn of duty with the intention of demonstrating competence in the following safety critical units:
  - Prepare for duty.
  - Bring trams into service.
  - Operate trams in service.
  - Respond to out of course & Emergency situations.
- The assessor must observe the candidate undertaking the processes involved in the above areas for a full competence assessment.
- Following observation of the tasks associated with the relevant performance criteria the assessor will question the candidate on the underpinning knowledge required in support of the practical actions observed.
- It is the responsibility of the assessor to ensure that the assessment process does not interfere with the safe operation of the LUAS system.
- Where unplanned events threaten to disrupt the assessment process, activities should be cancelled. (service disruptions etc)

When collecting evidence of competence a question bank will be used to ensure that the candidate has the underpinning knowledge required to deal with varying circumstances, which may be encountered when carrying out the role of driver.

Such evidence gathering interviews must be conducted in a suitable environment where the candidate has the opportunity to demonstrate their knowledge without interruption on a one to one basis.

Should a candidate prove deficient in a particular area of competence the assessor should provide feedback explaining the areas of deficiency. Failure to reach the required standards should be recorded on the assessment plan and progress record.

4 Documentation

All stages of the assessment process must be planned and recorded on the candidate's "assessment plan and progress record" All plans and checklists must be maintained on the candidate's assessment file.

Documents recording candidate performance and progress will be accessible to the candidate at any time during the assessment process and must be signed by both the assessor and candidate upon completion.

Following assessment the documentation should be retained for audit purposes. The following documentation and methods will be used to record the process:

- An assessment plan and progress record will be used to record progress toward competence

  Initially this document is intended to record the fact that the candidate understands what criteria is to be assessed, when and where the assessment is to take place and how evidence will be gathered.

  This document forms the basis of a file, which documents and verifies a driver's competence. All files must be retained securely in order to ensure confidentiality.

- All checklist and questions asked of candidates must be appended to the candidate's assessment records.

- The assessor will complete checklists in order to record evidence of competence. The checklists translate the standards into the criteria applicable to tram driving, identifying the actual performance standard.

  The checklists are supported by VEOLIA procedures, which amplify the requirements of the standards.

- Any checklists recording answers given to questions must be appended to the assessment records.

- When complete the signed assessment record of the driver achieving competence will act as current evidence and certification of their ability to undertake driving duties.

5 Additional Driver Assessment

In order to ensure consistency of driver competence, additional formative assessments must be carried out.

These assessments must be carried out whilst the candidate is operating a tram in service in order for tram handling to be assessed.

The evidence collected must be recorded on checklists and appended to the candidate's assessment file and feedback given to the candidate where appropriate.

A minimum of one formative assessment should be carried out annually. The assessment should demonstrate competence across a variety of operating conditions such as:

- Hours of daylight
- Hours of darkness
- Various weather conditions
- Various railhead conditions

6 Return to Work Assessments

Upon returning to work following absence (for whatever reason) of six weeks or more, drivers will be subject to a pre assessment.

The pre assessment forms the basis of an individual training needs analysis, identifying the requirement for one to one coaching for example or other specific training requirements. Changes to operating procedures, route risks or characteristics will be briefed in at this stage.

A record of pre assessment will be signed by the candidate and assessor as agreement on the training received or additional requirements identified.

The candidate will be scheduled for a full competency assessment or formative assessment in practical handling in order to enable the demonstration of competency prior to resuming full duties.

The assessor may also recommend additional monitoring take place for a period of time.

7 Competence of Trainer/Assessors

A selection process is adopted to ensure that persons carrying out competency assessments and training have:

- Occupational competence in tram driving
- The ability required to take charge of a situation where a candidate's performance during assessment may compromise safety.
- Assessors will be assessed on an annual basis in compliance with this procedure by the operation manager.

- Trainers / Assessors will be in possession of a valid train the trainer qualification.

8 Retention of Competency and Driving Time Record

In order to retain competency in driving, the assessors must drive trams in service for a period of one driving duty per month over the whole route of LUAS operation and must record actual driving time, which includes the following scope:

- Commencement time
- Conclusion time
- Route
- Weather conditions
- Daylight or darkness

9 Post Qualification Assessments

Post qualification periodicity and structure is detailed in the table below;

Type of Assessment	Time scale
Practical monitoring	1st within first month
Practical monitoring	2nd between 4th & 6th month
Practical monitoring	3rd between the 12th & 18th month
Practical monitoring	4th between the 16th & 20th month
Re-certification	Every 2 years

10 Verification process

In order to ensure the quality of the assessment process the Operations Manager will be responsible for reviewing and auditing procedures, this includes;

- Co-ordinating quarterly meetings of those involved in the assessment process in order to discuss and where necessary amend the question bank or checklists.
- Checking assessment records and documentation to ensure assessments are being carried out to the required standard and recorded appropriately.

11 Validation Process

The Operations Manager, Safety Manager and Human Resources Manager will meet periodically in order to validate the assessment process and supporting documentation.

Appendix A

TRAINEE'S NAME	I.D. No.

TRAINEE'S DECLARATION

I confirm that I have studied each of the Performance Criteria in this document. I understand the standards required of me and can perform to the required level of competence. I FEEL COMPETENT TO DRIVE THE TRAM SOLO ALONG ALL LINES IN PASSENGER SERVICE.

TRAINEE'S SIGNATURE	

TRAINER'S & MINDER'S DECLARATION

I confirm that my trainee has been trained in each of the Performance Criteria contained in this document.

TRAINER'S NAME	
TRAINER'S SIGNATURE	

ASSESSMENT DETAILS

Performance Standards coloured thus MUST be achieved

Date of Assessment	
Location & Start Time	
Location & Finish Time	
Assessment Conditions	

RESULT

COMPETENT NOT COMPETENT

ASSESSOR'S DECLARATION

The performance of the above named Trainee has been assessed against the criteria contained in this document. From the evidence presented to me I consider the Trainee to have HAVE/ NOT demonstrated the required level of competence and is IS/ NOT authorized to operate as a PASSENGER SERVICE DRIVER (ALL LINES).

ASSESSOR'S NAME	
ASSESSOR'S SIGNATURE	

12 Training & Assessment Structure	
Element 1	Taking Over Tram / Moving Off / Stopping / Terminus Procedure
Element 2	Driving Skills
Element 3	Communication Skills

Taking Over Tram / Moving Off / Stopping / Terminus Procedure					
Evidence Criteria: Workplace Observation = O					
		1st Attempt		2nd Attempt	
PC No.	Performance Criteria	Evidence O	Competent	Evidence O	Competent
1.1	Effectively communicates relevant information with the driver relieving/being relieved from duty e.g. radio messages received, infrastructure problems, condition of tram etc.				
1.2	Correctly re-programmes AVLS				
1.3	Adjusts drivers accommodation – seat, mirrors, heating, ventilation BEFORE MOVING OFF				
1.4	Does not refer to any article or item when driving i.e. timetable, AVLS etc.				
1.5	Checks internal mirrors & camera's before closing doors & ensures doors are closed properly				
1.6	Presses RTS if required, obtains & checks proceed signal BEFORE moving away				
1.7	Considers sounding bell & rings ONLY if appropriate				
1.8	Thorough check of tram stop crossing area especially if opposing tram is stationery i.e. people emerging from behind opposing tram				
1.9	Applies min.power then gradual smooth acceleration				
1.10	Concentrates on braking technique with progressive smooth braking when stopping – NO radio's, PA's etc.				
1.11	Accurately positions tram at stop on loop e.g. avoiding "hops" onto loops				
1.12	Release doors on correct side				
1.13	Correctly observes headshunt procedure				
1.14	Stops correctly before buffer stops at terminus				
1.15	De-activates & secures cab before changing ends				
1.16	Checks for suspicious packages, lost property, litter & damage when walking through tram				
1.17	Checks AVLS showing correct destination & does not depart before scheduled time				

Driving Skills					
Evidence Criteria: Workplace Observation = O					
		1st Attempt		2nd Attempt	
PC No.	Performance Criteria	Evidence O	Competent	Evidence O	Competent
2.1	Demonstrates that safety & comfort of passengers & safety of tram is the drivers primary concern				
2.2	Concentrates totally on driving the tram				
2.3	Conducts radio exchanges ONLY when safe to do so				
2.4	Shows awareness of swept path encroachments & acts promptly by coasting or braking as required				
2.5	Anticipates safe stopping & braking distances considering the prevailing track, weather, tram loading & traffic conditions				
2.6	No roll back / roll forward on gradients				
2.7	Coasts the tram as appropriate				
2.8	Maintains the timetable where practical				
2.9	Shows courtesy & consideration to all road users				
2.10	Obeys all tram signs, signals & PPI's				
2.11	Shows awareness & anticipation of action of others				
2.12	Anticipates & acts appropriately at known hazard locations				
2.13	Sounds bell warning before passing the rear of opposing tram or stationery HGV's – Danger of people emerging from behind vehicles				
2.14	Drivers at appropriate speed passing hazards, checking for people & obstructions				
2.15	Maintains safe distances from road vehicles & people				
2.16	Does NOT anticipate a proceed on approach				
2.17	Stays on the stop sign loop if junction is blocked when appropriate				
2.18	Does not exceed indicated speed signs				
2.19	Allows sufficient time for passengers to board & alight "full trams" at congested stops – use's "open all doors"				

Communication Skills					
Evidence Criteria: Workplace Observation = O					
		1st Attempt		2nd Attempt	
PC No.	Performance Criteria	Evidence O	Competent	Evidence O	Competent
3.1	Use's correct radio terms, procedures & protocol				
3.2	Understands & Obeys all instructions received from CCR				
3.3	Correctly identifies & reports tram faults / infrastructure faults				
3.4	Reports to CCR variations / delays to the timetable, obstruction to tramway, out of course situations & follows instruction				
3.5	Quality of PA announcements is clear, concise, informative & accurate				

Questions

Questions to be asked to complete observation of the driver if a particular situation does not arise during the assessment. Mandatory questions must be asked, non-mandatory have to be sampled.

M/O	Items	P/F	Comment
	Taking Over Trams in Service		
O	Why do I need to communicate with the driver when taking on a tram?		To learn about tram failure (door isolated for example) or specific problem on line
O	How do you maintain safe cab discipline?		No unauthorized people in cab, equipment/articles safely stowed away, windscreen clear, no earpieces personal stereos & portable radios etc
O	When can you use a mobile phone?		Never while driving (same as for a car driver). Use only when the tram is stationary out of the cab or if operationally essential if all other com systems have failed
O	What should you do if a relieving driver is delayed taking your tram over?		Contact CCR & advise them of situation so that they can organise for relief driver to attend tram, make PA announcement apologising for delay
O	Where and when can you eat, drink or smoke?		NOT on the tram, Show respect to customers, do not smoke when on duty in the presence of customers
	Tram Stop Procedures		
O	When can you use the door closure override?		ONLY after giving a PA warning if appropriate
M	When can I use the horn?		In presence of unexpected danger. Action should be first to slow down or if the warning by chimes has been ineffective
O	What is the procedure to start from a stop		Thinks of elderly people and risk of fall. Applies min. power then gradual, smooth acceleration to avoid tram jump. The brakes need time to release.
O	When should you use manual sanding?		Tram will sand automatically. If track very slippery, inform CCR. Use sand only when instructed by CCR and never over points
	Terminus Tram Stops		
O	Why do you need to walk through the tram when changing ends?		To check for suspicious packages, Tram cleanliness, syringes on seats etc.
O	What do you do if you discover a syringe, body fluid?		Report to CCR to arrange cleaning. Takes action to protect passengers in areas contaminated. If you cannot secure the section of the tram with CSO's detrain the passengers with CCR authority.
O	What do you do if you discover a suspicious package or received a bomb threat?		Report any suspicious packages to the CCR. Do not use your mobile phone or hand held radio close to the packages Record any code word

	Passenger Service Driving Skills		
O	Where can you maintain radio communication with CCR?		Conduct radio exchanges only when safe to do so and NOT whilst driving along a street or interfacing with other road users e.g. at crossings & junctions (NB. Control could call for an emergency)
O	What is the procedure if you perform an emergency brake?		Check welfare of passengers before proceeding. Report emergency brake to CCR.
O	What is the procedure when you stable a tram on a storage lane after it's brought in out of service?		Log off AVLS, turn off saloon lights and turn off heating in saloon and cab.
O	If you think that a car or truck is parked on the swept path., what do you do to ensure you don't collide?		Look at the swept mark indicator. Do not proceed if unsure obstacle is in swept path. Contact CCR for possible visual of scene. Sound chimes at car/truck to get their attention to move vehicle.
M	Is it enough to check if the head of the tram is clear of an obstacle to be safe to go through		No, the tail can swept more than the head and you will hit the obstacle. Look only at the swept mark, not if the head is clear
	Defensive Driving Skills		
M	If you have to make an unexpected stop on the line, what are the 2 first things you have to do?		Put the Hazard light on, Call CCR
O	What can happen in wet conditions?		The stopping distance may increase by 50%. Regulate speed according to conditions; reduce speed in the city in particular.
O	What do you do in poor visibility?		Regulate speed according to prevailing conditions, Use of bell/horn as appropriate, always stop safely in the distance which is seen to be clear
M	What is a safe separation distance from road vehicles or following trams?		It is the stopping distance in maximum service brake. At 30km/h 30 meters at 70 km/h 160 meters. In wet conditions distance can increase by 50% In emergency brake it is shorter, At 30km/h 10 meters at 70 km/h 60 meters
O	What do you do if you notice people on the track?		If they are on the track, slow down immediately, chimes and horn if required. Do not anticipate that they will get out of the tramway.
	Tramway Junctions & Highway Crossings		
O	What's an Exit Loop and explain its purpose?		When tram passes Exit Loop it allows traffic signals to return to normal. If stuck in the junction the car signal will return to normal after a period of time
O	What should you do if you observe an Emergency Vehicle approaching your path?		Give way to Emergency Vehicle when safe to do so.

O	At a junction what do you do if all signals have failed? i.e. both tram and traffic signals		Stop before junction, contact CCR and await instruction. You can cross the junction under the rules of the road: use hazard lights & bell/horn were required and proceed through junction at 5kph
O	At a junction what do you do if the tram signal has failed? i.e. traffic signals for road users are still working		Stop before junction, contact CCR and await instruction. CCR will attempt to correct situation with DCC and/or organise for Gardai to attend the scene to allow trams through the junction.
O	When should you stop if OCS fails?		Do not attempt to cross a junction. Stop tram in safe place, not obstructing junctions, pedestrian crossings & access to properties, or coast tram to next stop if possible.
O	What do you do if a junction is blocked by road vehicles?		Stop before junction. Contact CCR to advise of possible delays. Do not proceed into junction if route is blocked. Wait for signal sequence to give another proceed.
O	What is the procedure when an incident on the line will cause delays to your tram?		Make effective PA announcement & keep customers informed/updated regularly with any developments
O	What steps would you take if you notice a special needs passenger?		Provide effective assistance to customers with special needs Open the doors if required Leave extra time to settle in tram
M	What steps would you take if you notice a lost minor?		Inform CCR. Stay with lost minor until parents/CSO's Gardai arrive – DO NOT leave lost minor with a member of the public
O	What do you do in case of overcrowding?		Report to CCR the location, if required use internal PA to advise of tram frequency and when the next tram is due.
O	What do you do in case of a passenger falling ill or injured on the tram or platform?		Promptly report it to CCR & request medical assistance if required. Do not leave passenger alone if assistance is required.
O	A disturbance occurs on your tram, what do you do?		Promptly report it to CCR, stop tram at next stop to allow people not involved to escape

ASSESSMENT FEEDBACK

Copy given to Trainee	YES NO	**If NO please state reason**
Signature of Trainee		
Date		
Signature of Assessor		

VEOLIA
TRANSPORTATION

Veolia Transportation Services, Inc.
Tri-Rail Operations: Miami, FL

Action Plan: In compliance with: Final Rule, 49 CFR Part 217 & Part 218

CFR 217.9

Veolia Transportation Services, Inc. (Veolia)., in its role as contract operator for the South Florida Regional Transportation Authority's (SFRTA) Tri-Rail operation, will comply with the Code of Federal Regulations (CFR) 217 Section 9 by way of the following:

a) Veolia will conduct periodic operational tests, as outlined by this action plan, to determine the extent compliance with its code of operating rules, timetables, and timetable special instructions. Veolia will also include tests, observations and inspections sufficient to verify compliance with the requirements of subpart F of Part 218.
b) Veolia will ensure that its railroad testing officers will comply with the requirements for qualification as a testing officer, including any and all necessary field training to ensure compliance with portions of subpart (h) of Part 217, Section 9. Written records of each railroad testing officer will be made available for inspection per subpart (b).
c) Veolia will comply with subpart (c) by providing a written program of operational tests and inspections. Veolia's testing plan will include a required minimum number of tests and inspections, including those in compliance with Part 218. A description of each type of operational test, its purpose, means and measures are included in the Veolia Test and Observations (T&O) Manual, which is attached.

Veolia's qualified railroad testing officers, and their titles, as of July 1, 2008, shall be:

Douglas Stencil, Manager of Safety and Training
Victor Salemme, Superintendent of Operations
Damian A. Basile, Road Foreman of Engines
James Sharpe, Road Foreman of Engines
Daniel C. Stokes, Road Foreman of Engines
Gustavo Solages, Road Foreman of Engines

d) Records of all tests and observations shall be retained at Veolia Transportation Services, Inc. offices in Miami, FL. These shall include the date, time, place and result of each operational test and inspection that was performed in accordance with Veolia's program.

e) Reviews of tests and inspections, and any adjustments to the program of operational tests shall be conducted in compliance with Part 2 of this Subpart (e), that is, such reviews occur not less than once every 6 months, and be completed within 30 days of the close of the period. A designated Veolia railroad testing officer will conduct a written review, which shall comply with Items (i), (ii), and (iii) of this Subpart, including: operational testing and inspection data, accident/incident data, and documentation of proper implementation. Records will be retained for periodic reviews as prescribed, and will be retained for a period of one year after the end of the calendar year to which they relate. These will be available for inspection and copying by representatives of the FRA during normal business hours at Veolia's Miami, FL offices.

f) Per Subpart (f), an annual summary of operational tests and inspections shall be compiled and retained for inspection and copying by representatives of the FRA during normal business hours at Veolia's Miami, FL offices.

g) Electronic recordkeeping of pertinent data shall be provided in accordance with all items under Subpart (g).

h) Under Subpart (h), Veolia Transportation recognizes that, upon review of this Action Plan, the Associate Administrator for Safety may, for stated cause, reject Veolia's program. Veolia understands the conditions and terms for amendment and re-submission of its program given this contingency.

CFR 217.11, Part C

Veolia will retain, by means of electronic recordkeeping, its program for period instruction of its employees on the operating rules. This will be accomplished by Veolia's qualified testing officers by way of the company's Solutions Testing Data system.

CFR 218.95

Veolia Transportation Services, Inc., shall maintain the aforementioned program of instruction, training, and examination of its employees per Subpart (a) of CFR 218.95. Veolia understands that, given the satisfaction of this Subpart, this portion may be consolidated into the program of instruction outlined under CFR 217.11. The specific methods and measures of this program are outlined in Veolia's Test and Observations Manual, which is an attachment to this Action Plan.

Per Subpart (b), written records documenting the successful completion of instruction shall be compiled and retained at Veolia's Miami, FL offices. Per Subpart (c), Veolia Veolia Transportation recognizes that, upon review of this Action Plan, the Associate Administrator for Safety may, for stated cause, reject Veolia's program. Veolia understands the conditions and terms for amendment and re-submission of its program given this contingency.

CFR 218.97

Veolia recognizes its requirements under the stipulations for good faith challenge procedures. Under Subpart (a), Veolia understands the responsibility of each individual employee to initiate challenges to its operational practices that would violate the railroad's operating rules regarding the handling of equipment, switches, and fixed derails.

Under Subparts (b) and (c), Veolia will provide general procedures for initiating any and all good faith challenges by its employees. Should a challenge be deemed unable to be resolved, provisions will be made for review by a designated officer of Veolia Transportation; this shall be undertaken to verify the application of all regulations, law, procedure, or the operating rule in question.

Per Subpart (e), recordkeeping shall be Records will be retained for periodic reviews as prescribed, and will be retained for a period of one year after the end of the calendar year to which they relate. These will be available for inspection and copying by representatives of the FRA during normal business hours at Veolia's Miami, FL offices.

Updated July 1, 2008

VEOLIA
TRANSPORTATION

Veolia Transportation
Synopsis of Test and Observations (T&O) Program

Test and Observations (T&O) is a Veolia's comprehensive program for conducting and recording tests of an employee's compliance with the rules of operation. When conducted by a qualified testing officer, a T&O measures an employee's ability and willingness to correctly apply the rules pertaining to train operations. A Road Foreman, or other qualified testing officer, may perform operational T&O's and inspections on any applicable ***Operating Rule, Special Instruction***, or ***Air Brake and Train Handling Instruction***, or on one of the ***SOFA Safety Rules, Emergency Preparedness Procedures***, or ***Mechanical Department Procedures*** referenced in this manual.

Strict compliance with the rules is essential to the safe and effieient operation of the railroad. The purpose of T&O is to achieve the highest level of rule compliance possible. A properly conducted T&O will:

1. Reduce the risk of accidents and casualties caused by human error, or resulting from impairment of employees by alcohol or drugs.

2. Improve and maintain employee alertness.

3. Provide Road Foreman with an immediate evaluation of an employee's application, understanding and compliance with the rules.

4. Assist Road Foreman in educating employees on the correct way to apply the rules in actual operating situations.

5. Enable the company to measure general and specific areas of rules compliance, so that overall rules compliance can be maintained or improved.

T&O's must be conducted in a fair and impartial manner, keeping in mind the educational value of the process. Rules must be enforced in a firm, fair and consistent manner, without regard to personalities or emotions.

Employees who are observed complying with the rules should be commended for their attention to their duties. When the T&O does not permit immediate face-to-face meeting with the

employees being assessed, every effort should be made to provide positive feedback in a timely manner by letter or personal contact.

Employees who are observed failing to comply with the rules must be verbally instructed or counseled on the correct manner in which to apply the procedures. If the employee has been previously counseled for the same infraction, the second counseling session should be followed up with a letter to the employee. Formal disciplinary action must be taken when a violation is serious, or is a repetitive action on the part of the employee.

For a T&O to be successful, the testing officer must make these assessments a regular part of their normal duties and activities (e.g., part of a Road Foreman's normal routine). Employees who know that their Road Foreman is taking an active interest in ensuring that they are performing their duties correctly are much more likely to comply with applicable rules. Regular assessment of employees also gives the testing officer the opportunity to give employees additional guidance when needed.

2. OVERVIEW OF VEOLIA'S TEST AND OBSERVATIONS PROGRAM

The Veolia T&O program focuses on the Operating Rules for train and engine (T&E) employees. Each T&O category is fully explained in the "Road Foreman's Guide to T&O's", which is included with this document. A section on each T&O category gives detailed direction to a Road Foreman on how to conduct the T&O, what rules the T&O should cover, and what constitutes a failure of that T&O. This will give consistency as well as provide newer Road Foreman with clear guidelines for conducting these assessments.

This system allows T&O's on any rule or instruction. However, T&O's will be identified using numbering that will group rules into standardized categories. Individual rules can still be identified, but the primary sorting will be by the assigned category (T&O) number.

For example, a T&O on a T&E employee that involves switches or switching will be shown as T&O 117. The Road Foreman's guide for T&O's, Test117 lists all of the applicable rules that comprise this T&O. This reduces the number of entries that a Road Foreman has to make while at the same time ensuring that a wide variety of rules are observed. However, if compliance with a specific rule is observed but it is not listed under this T&O, it may be noted in the comments field. A failure would always require a specific rule reference in the comments field.

Any rule or instruction that does not seem to fall into one of the standard T&O categories may be shown in the "all other T&O's or Observations" category that is included in the T&O numbers for T&E employees noting the rule number in the comments field. However, this category should be used sparingly and only for safety critical rules that cannot be located in any other T&O category.

3. METHODS FOR CONDUCTING T&O'S

Various methods may be used to conduct T&O's. These methods include, but are not limited to, visual observation *(see Note below)*, monitoring of live and previously recorded radio and telephone transmissions, scrutiny of locomotive event recorder data, and use of radar or other approved wayside speed monitoring devices.

Approved shunting device and/or communication and signal (C&S) assistance may be used in conjunction with signal compliance checks. Prior to conducting signal checks, signal aspects must be verified. Whenever possible, these assessments must be conducted without the knowledge of the employees being tested.

4. CONTROL OF ALCOHOL AND DRUG USE

Whenever a trained and qualified Road Foreman conducts a direct personal observation of an employee, they must monitor the employee to determine whether they are in compliance Federal Regulations (49CFR219) that prohibit alcohol and drug use. While such monitoring is a required and essential Road Foreman's function, it is not mandatory that each direct personal observation be documented in the T&O'S system using T&O 128 - Drug & Alcohol.

If it is determined that an employee is not in compliance with Federal Regulations, the observation must not be recorded in the T&O'S system. Such instances of failure must be handled in accordance with the applicable Company or Federal guidelines **(see T&O # 128).**

5. EMERGENCY PREPAREDNESS ~~T&O'S USAGE PROC~~

Veolia is required by Federal regulation (49CFR239.301) to conduct operational T&O's of our T&E employees to determine the extent of compliance with our Emergency Preparedness and Response Plan.

Emergency Preparedness and Response Plan T&O's are intended to document whether our employees know how to respond in the event of an emergency.

6. INSTRUCTIONS FOR RECORDING T&O'S

A. TEST & OBSERVATION FORMS

- Form 1872, "Employee Efficiency and Safety T&O's Report," is used when one Road Foreman performs one or more T&O's on the same employee. Note: The T&O'S software can also be used to record the same T&O on multiple employees, by checking the "Multiple Employee T&O" checkbox on the 1872 T&O Entry screen (located under "T&O Time"), and adding the additional employees after completing the first 1872 entry.

- Form 1875, "Veolia Locomotive Engineer Evaluation Form", is used to record a Road Foreman's evaluation of an Engineer or Engine Certified Road Foreman's performance in operating a train or engine. Evaluations for Engineers in road service must last for at least ½ of the assigned trip. Evaluations for Engineers in yard service must last for at least 4 hours. When the evaluation has been completed, a copy of the evaluation form must be given to the Engineer.

B. Completing and Entering T&O'S and Engineer Evaluations

T&O Forms must be completed during or immediately following T&O. Instructions are printed on the back of the forms. Once completed, the forms must be entered into the T&O database as soon as practical, but no later than 5 days following the month in which the T&O occurred. Questions regarding the completion of T&O forms, or their input into the T&O program, should be directed to the Manager Safety & Training.

T&O Forms will not be accepted by the T&O program unless all involved employees and Road Foreman are in the T&O program's Employee Database. Employees and Road Foreman may be added to the T&O program employee/Road Foreman database through use of the T&O Employee Database.

Road Foreman who are equipped and trained to do so may enter T&O's directly into a specially designed laptop computer program. T&O records entered in this manner must be synchronized with the central T&O'S system database as soon as practical.

C. Listing employees T&O's for a Barricade or Set Up T&O, and all other T&O's:

Although the entire crew may be listed under the T&O number when a "Barricade" (Method "B") or "Set Up" (Method "C") T&O is performed on a train, *show a "B" or "C" in the method field only one time*. This should normally be for the employee who was controlling the movement at the time of the T&O, if known.

In other words, you can show each employee in the crew as T&O Test 101, but put a "B" in the method field only for one employee (usually the employee who was controlling the movement.

Road Foreman's T&O'S Guide Page 8 of 101 February 28, 2007.

The same applies for any "set up" T&O – show only one "C" per T&O event, even if you show a T&O 102 (for example) for each crew member.

The reason for this is to count barricade and set up tests only once per event (train tested), so that the quota per supervisor can be accurately determined. The quota for "B" and "C" type tests is only per supervisor; there is no quota for employees.

For all other tests, only the employee(s) directly responsible for compliance with a rule may be listed as being tested under that rule. Many TESTS, however, include observation of the entire crew and in those cases it is appropriate to list all employees as tested.

For all other tests, only the employee(s) directly responsible for compliance with a rule may be listed as being tested under that rule. Many TESTS, however, include observation of the entire crew and in those cases it is appropriate to list all employees as tested. Only the engineer (but all engineers on the head end, regardless of who was actually operating at the time) may be listed for a "Radar" or "Event Recorder" test.

Only the engineer (but all engineers on the head end, regardless of who was actually operating at the time) may be listed for a "Radar" or "Event Recorder" test.

D. Controlled Communication T&O:

Compliance with the rules that require specific communication between crew members is a safety-critical component of many procedures, but is especially important during back up and shoving movements. Since observations of employees may not always detect unsafe practices, Road Foreman should use controlled "set up" type T&O's as part of their T&O program. The following description of "Controlled Communication T&O" reflects a T&O procedure that several of the divisions are already performing. All divisions should include this type of T&O in their program.

In order to realistically T&O for compliance with a rule that requires communication with another employee, a Road Foreman may instruct an employee to withhold such communication, or to provide incomplete information. Such T&O's will be performed only when the Road Foreman has determined that no unsafe condition will result.
Examples of such T&O's are:

- T&O 118: Instructing the employee who is directing a shoving move not to give the required information prior to starting the movement.

Expected response - Engineer should not start move.

- T&O 118: Instructing the employee who is directing a shoving move to stop giving the required distance.

Expected response - Engineer should stop within half of the last distance given.

- T&O 119 (or other applicable T&O): Instructing an employee who is required to provide any other type of communication not to give such communication.

Expected response - Other crew members should notice and question the omission.

Employees are expected to cooperate with the Road Foreman's instructions under these T&O conditions, and will not be considered in violation of the rule being T&Oed. The Road Foreman who conducts such a T&O will be considered in charge of the movement and must be qualified on the operating rules and physical characteristics of the territory. The Road Foreman in charge must ensure that ample safety margins are established.
The primary purpose of such T&O's is educational and the Road Foreman will initially handle any exceptions verbally.
Recording Controlled Communication T&O'S:

- Use the applicable T&O No.

- Enter "C" in the Method field (for credit for a "set-up" T&O)

- Enter "CCT" (for Controlled Communication T&O) in the Comments field.

E. Event Recorder T&O's (Check Method T):

The event recorders that are in use on most Veolia locomotives are sophisticated devices that record much more than simply the speed of the train. Downloading these event recorders will usually provide information on not only the speed, but also the throttle position, brake application, load (amperage), sounding of the horn, and several other parameters.
Road Foreman should do the following when conducting event recorder T&O's:

1. Review the portion of the event recorder download that covers at least half of the entire trip of the engineer(s). You may print only the pages that contain the events on which you entered a T&O. In other words, instead of printing the entire download or portion of the trip, you may print only the applicable pages that contain the air T&O, speed restriction, etc. that you used to enter the "T" method T&O.

2. Verify engine number, train number, date and operating crew (use CMS and/or Train Register records). Record this information on the printout (or disk label, if applicable).

3. Verify actual arrival/departure times at identifiable locations (usually stations - use Arrow and Conductor Delay Reports).

4. Obtain information on temporary speed restrictions and other instructions in effect for the specific trip.

5. Make notations directly on the printout that identify the time, location and event (see below) that is being checked.

6. File (for 1 year) the annotated printout with the train, date and engineer(s) name.

7. Clear the "Personally Observed" checkbox before saving the T&O.

Downloads may be reviewed and retained electronically, subject to the following conditions:

- Approval by the Division, and

- Provided that the individual Road Foreman has demonstrated his or her ability to print and annotate these event recorder downloads as instructed. The quarterly Operational Safety Review (OSR) will be used to determine if a Road Foreman meets this requirement. Therefore, all Road Foreman should print and retain copies of their event recorder until their OSR indicates that they have demonstrated compliance with this requirement. You would then be required to retain an electronic copy of the download (on your computer or on a floppy disk) and have it available for audit for one year.

To get the maximum benefit from spending the time to download and then analyze the data from an event recorder, multiple events must be reviewed. Each event recorder review must include FIVE different T&O'S. Examples of acceptable T&O'S are:

1. Temporary speed restrictions - must include at least one such T&O, if applicable (Enter as T&O 108 SPEED).

2. Permanent speed restrictions (T&O 108 SPEED).

3. Maximum auth. speed - no more than one such T&O per trip (T&O 108 SPEED).

4. Restricted speed (T&O 108 SPEED, or other applicable T&O).

5. Speeds required by known signal indication (T&O'S 102 – 105)

6. Speed required by known delayed in block situation (T&O 107)

7. Required running brake T&O or standing brake T&O (T&O 110)

8. Use of horn or bell - no more than one such T&O per trip (T&O 122)
   Road Foreman's T&O'S Guide Page 10 of 101 February 28, 2007

Other events that are identifiable can also be used when possible. If more than one engineer is assigned to the train, event recorder T&O's are applicable to both engineers. Enter each T&O in the normal manner but follow these specific instructions:
T&O DATE: Use the actual date when each event being observed occurred.
TIME: Use the actual time as indicated on the event recorder (corrected as necessary) at the location where the event being observed occurred.
NEAREST: Name

VEOLIA TRANSPORTATION

Tri-Rail Operations
9400E NW 37th Ave
Miami, FL 33147

Rail Efficiency Test Report
Employees Test Detail

From: 11/16/2008 To: 11/26/2008

Book: **Operating**
Test: **199**

Printed: 11/26/2008 10:01

Date	Time	Test	Train	Location	Performed By	Result	Comments
Crewbase							
Name							
11/17/2008	13:15			MET		C	Rules Review 272, 90, 70, Walking Miami Canal
11/24/2008	8:05			MAN		C	Review CSX Rules 90, 272, 70 & walking Miami Canal Bridge. Employee had no additional questions.
	2						Employee Total
Name							
11/20/2008	5:00	199		MR		C	engr reported on time for duty.
	7:40	199		MAN		C	BRIEFINGON CSX RULE 90
11/25/2008	4:30	199		MIA		C	REVIEW RULE WALKING MIA CANAL
	4:30	199		MET		C	REVIEW RULE 70
	4:30	199		MET		C	REVIEW RULE 90
	4:30	199		MET		C	REVIEW RULE 272
	6						Employee Total
	8						Crewbase Total

MBCR

Massachusetts Bay
Commuter Railroad Company

PROGRAM OF

OPERATIONAL TESTS

AND INSPECTIONS

Effective: July 1, 2008

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PROGRAM OF OPERATIONAL TESTS AND INSPECTIONS

Massachusetts Bay Commuter Railroad Company (MBCR)

I. Administrative

Transportation
Stephen Urban
Chief Transportation Officer
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Boston, MA
617-222-8029

Engineering
Robert Johnson
Deputy Chief Engineer
Cobble Hill
Somerville, MA
617-222-3619

Mechanical
Steven Brereton
Chief Mechanical Officer
CRMF
Somerville, MA
617-222-6670

In compliance with Title 49, Code of Federal Regulations (CFR) Part 217, this program was prepared to ensure that periodic operational tests and inspections are conducted to determine the extent of compliance with the code of operating rules, timetable, timetable special instructions, and other governing policies and procedures.

Operating Rulebook – Northeast Operating Rules Advisory Committee (NORAC) Operating Rulebook. (Current Edition)

Timetable – MBCR Commuter Rail Service Employee Timetable (Current Edition)

II. Testing and Observation Purpose and Scope

Massachusetts Bay Commuter Railroad Company (MBCR) has developed this inspection program for testing employee safety and operating rules compliance in accordance with federal requirements to periodically monitor the safety and operating performance of persons employed by or in engaged in railroad operations.

An operational test or inspection is a supervisor's test and/or observation of an employee's knowledge, skills, ability, and determination to correctly apply the rules in the performance of his/her duties. A "**Test**" is a rules compliance check, which requires an active effort on the part of the supervisor or supervisors, and includes an action on the part of the employee being tested. Examples would include conducting restricted signal tests in conjunction with a train dispatcher and/or signal maintainer or conducting a question-and-answer session with a train crew to determine rules familiarity. An "**Observation**" is distinguished from a "Test" in that an observation is the passive monitoring of an employee, either observed or unobserved, in the normal course of his/her duties, by a supervisor.

Supervisors including Trainmasters, Road Foremen, Rules Examiners, General Supervisors, Chief Train Dispatchers, and other managers, will perform operational tests and observations based on applicable:

- NORAC Operating Rules
- Timetable Special Instructions
- Safety Rules or Procedures
- Air Brake & Train Handling Instructions (MBCR-3)
- Roadway Worker Protection (RWP) Manual
- SOFA Safety Rules
- Emergency Preparedness Procedures (49 CFR Part 239)
- Mechanical Department Procedures
- Safety Rules and Instructions
- "Human Factors" Regulation (49 CFR Part 218 Subpart F)

Employees subject to testing include train and engine service crews, train dispatchers and block operators, mechanical, engineering and signal department employees.

When necessary this submission may be modified to incorporate data from many sources that may include:

- Accidents/Injuries/Incidents – including rule violations
- FRA inspection reports – deficiency citations
- FRA Safety Data
- Internal audits, inspections, and investigations
- NTSB reports and recommendations
- Accidents/incidents experienced on other railroad properties

The essential format for performing and manually recording Tests & Observations (T&Os) has been well established and conveyed to all current railroad supervisors. Refresher training will be conducted as part of the supervisor's annual NORAC class. Initial training will be provided to all new supervisors within 90 days of their appointment.

III. Testing and Observation Objectives

Rules compliance is based upon training in and knowledge of procedures and, most importantly, the employee's *decision* to properly apply his/her training to his/her duties. Individual employee responsibility is paramount to the safe and efficient operation of the railroad, including the safety of other employees, passengers, and the general public.

Developing and implementing this system of monitoring employees' work habits will attain the following objectives:

1. Prevent train accidents, close-calls, employee and passenger injuries, and damage to railroad property by ensuring that employees correctly apply the operating rules and instructions.

2. Improve and maintain employee alertness and awareness of the environment in which they operate.

3. Reduce human factor accidents (accidents/injuries whose cause is wholly or partially attributable to human error). Emphasis with compliance with rules and special instructions relating to "Human Factors" regulation.

4. Provide supervisors an immediate evaluation of an employee's application, understanding, and compliance with the rules.

5. Allow supervisors to provide feedback to employees on the correct way to apply the rules in operating situations in a timely manner.

6. Provide information necessary for the company to measure general and specific areas of rules compliance and non-compliance in order to assess/re-assess training needs.

In order for tests and/or observations to be successful, supervisors must make tests and/or observations a regular part of their supervisory activities. Employees who know that their supervisors are taking an active interest in ensuring that they are performing their duties correctly are much more likely to comply with applicable rules. Regular testing and observation of employees also gives supervisors the opportunity to give employees additional guidance when needed.

Supervisors must conduct all tests and/or observations in a fair and impartial manner. Employees who are observed failing to comply with prescribed procedures or rules must be verbally instructed or counseled on the correct manner in which to apply the procedures or rules as soon as possible after the test/observation.

If the employee has been previously counseled for the same violation, the second counseling session must be followed up with a letter to the employee; if the violation involves a safety critical rule or instruction, a follow-up letter **must** be sent to the employee, to include details of the consequences of a subsequent violation. Formal disciplinary action must be taken, in conformance with applicable collective bargaining agreements, when a violation is serious, or is a repetitive action (or inaction) on the part of the employee.

IV. Procedures for Conducting Tests and/or Observations

In order to promote meaningful tests and observations, supervisors **must** be trained and qualified in the applicable rules of the craft(s) for which they are testing.

Whenever feasible, tests and/or observations should be conducted without the knowledge of the employee(s) being monitored; in order to most accurately gauge how the employee performs under normal operating conditions. Tests and/or observations will be conducted during all hours of operation.

Various methods may be employed for conducting tests and/or observations. These methods include, but are not limited to:

- Visual observation.
- Direct questioning of employees to gauge extent of knowledge of rules, procedures.
- Monitoring of live and previously recorded radio and telephone transmissions.
- Examination of locomotive event recorder data.
- Use of radar and other approved wayside speed monitoring devices.
- Setting up a scenario where the employee is unaware beforehand and the employee must comply with rules or instructions not encountered in the normal course of duty.

A. TRANSPORTATION DEPARTMENT

Transportation Department supervisors should prioritize test and/or observation selections, (1) to ensure compliance with federally required tests and inspections and, (2) as indicated by management directives as a result of accident/incident data, non-compliance with rules, etc. These tests must be performed in addition to Operating Rules, Special Instructions, Air Brake and Train Handling Instruction, Transportation Safety Rules compliance tests.

Some examples of safety-critical TESTS and/or OBSERVATIONS for Transportation Department Managers include, but are not limited to:

RESTRICTED SPEED TESTS

Barricade Tests

Purpose:

To determine crew compliance with requirement for controlling train movement at restricted speed per NORAC Rule 80.

Barricade Test Set-up:

Supervisors conducting operational tests for that part of Restricted Speed which requires trains to be prepared to stop short of a train, obstruction, switch not properly lined, etc., will place a standard track barricade or shunting device on the track ahead of the train sufficiently in advance of its movement to determine compliance.

Supervisors placing a track barricade in signaled territory <u>not equipped</u> with cab signals would proceed as follows:

1. Contact the Train Dispatcher before erecting the barricade to advise him/her of the nature of the test, and to ensure that no trains will approach the test site until the track has been shunted.

2. Place a standard track barricade in the block to be shunted.

3. Verify that the signal governing the entrance to the block is displaying Stop Signal, Stop and Proceed, Restricting, or Restricted Proceed, by either:

    - Directly observing the signal aspect.
    - Asking the Train Dispatcher or Operator if there is a track occupancy light (TOL) in the appropriate location.

Supervisors placing a track barricade in signaled territory <u>equipped with cab</u> signals would be governed as follows:

1. Contact the Train Dispatcher to advise him of the nature of the test, and to ensure that no trains will approach the test site until the track circuit has been de-energized.

2. Have a C&S representative de-energize the appropriate track circuit.

3. Verify that the signal governing the entrance to the block is displaying Stop Signal, Stop and Proceed, Restricting, or Restricted Proceed, by either:

    - Observing the signal aspect.
    - Asking the Train Dispatcher or Operator if there is a track occupancy light (TOL) on the model board in the appropriate location.

4. Place a standard track barricade in the block that has been de-energized.

Barricade Test Results:

To comply with the test, a train proceeding at Restricted Speed must stop before striking the barricade.

If a train strikes the barricade, the engine crew must **immediately** be removed from service pending investigation, removed for testing for the presence of drugs and alcohol using FRA authority on the basis of reasonable cause due to a rules violation and charged with violation of the appropriate signal rule.

Fusee Tests

Purpose:

To determine crew compliance with requirement for controlling train movement at restricted speed per NORAC Rule 14.

Fusee Test Set-up

Supervisors conducting operational tests for that part of Restricted Speed which requires trains to be prepared to stop short of a train, obstruction, switch not properly lined, etc., may also place a single burning fusee adjacent to a main track or controlled siding, or on a track next to a main track or controlled siding ahead of a train sufficiently in advance of its movement to determine compliance. Fusees must not be placed on bridges or other structures that are likely to burn.

Fusee Test Results

Supervisors determine compliance as follows:

A train encountering an unattended burning fusee adjacent to a main track or controlled siding, or on a track next to a main track or controlled siding **must STOP**, although not over the burning fusee, if at all avoidable. The train must proceed at Restricted Speed until the head end of the train is one (1) mile beyond the fusee.

If a train fails to stop and proceed at restricted speed, the engine crew must **immediately** be removed from service, removed for testing for the presence of drugs and alcohol using FRA authority on the basis of reasonable cause due to a rules violation and charged with violation of the appropriate signal rule.

RULE G OBSERVATION

Purpose:

To ensure that MBCR employees while on duty or reporting for duty are in compliance with NORAC Rule G which prohibits the use or being under the influence of alcoholic beverages or intoxicants and also the use or being under the influence of any drug, medication, or other controlled substance – including prescribed medication – that would affect their alertness or safety.

Type of Observation:

The supervisor(s) conducting the observation must be conversant with what is required per company policy and federal regulation. Observations will include whether employee shows any signs or symptoms of impairment consistent with the drug and alcohol training the supervisor has received.

Result:

To comply with this observation, supervisors must make a direct unannounced observation of employees reporting to their workplace or during their tour of duty. Supervisor must make face to face contact with employee and make direct observation of employee.

Failures of a Rule G Observation must be documented according to the MBCR D&A policy and/or federal D&A regulation (49CFR219), where applicable.

NORAC RULE 4 – JOB BRIEFING

Purpose:

To determine that employees whose duty requires coordination with other employees must hold a job briefing to review operational and safety conditions. With the enactment of the "Human Factors" regulation, more emphasis is placed on job briefings when handling switches or derails and shoving moves.

Employees are observed to conduct an initial job briefing and if conditions change, they hold an additional job briefing to discuss the new conditions.

Type of Tests/Observation:

Directly observe that they are be conducted face-to-face, or if not possible, by radio or telephone.

NORAC RULE 16 – BLUE SIGNAL TEST:

Purpose:

To determine if the proper protection of employees is being afforded for those working on, under, or between equipment while servicing, inspecting, testing, repairing equipment in the mechanical facility.

Type of Test/Observation:

The supervisor(s) conducting the test must be conversant with what is required per company policy and federal regulation. Observations can include:

- Observing whether employees check for the absence/presence of blue signal protection prior to moving the equipment.
- Talking with employees to determine their knowledge of blue signal protection requirements.

Test Result:

To comply with this test make direct, unannounced observations as well as engage employees in conversation to determine knowledge of rules and their practical application.

NORAC RULE 104 – HAND OPERATED SWITCHES AND DERAILS

Purpose:

To determine that employees are conversant with and demonstrate the proper positioning and securing of switches and derails as in new Rule 104 found in the "Human Factors" regulation.

Type of Test/Observation:

Supervisors' observation of employees' compliance with the use of switches and derails:

1. Be qualified on the operating rules relating to their operation;
2. Conduct a job briefing before work is begun, each time a work plan is changed, and at completion of the work;
3. Visually determine that switches are properly lined for the intended route and that no equipment is fouling the switches;
4. Visually determine that the points fit properly and the target, if so equipped, corresponds with the switch's position;
5. After operating a switch and before making movements in either direction over the switch, ensure that the switch is secured from unintentional movement of the switch points, when equipped with a hook, lock or latch;
6. Ensure that a switch is not operated while rolling and on-track maintenance-of-way equipment is fouling the switch, or standing or moving over the switch; and
7. Confirm switches and derails are in proper position before, during and after use.
8. After operating a switch, ensure that when not in use, each switch is locked, hooked, or latched, if so equipped.
9. Promptly report any switch, derail or securement device that is found to be defective.

Test Results:

Employees demonstrate compliance with the requirements above.

NORAC RULE 108 – UNATTENDED ENGINE

Purpose:

To ensure that unattended engines are properly secured from unintended movement.

Type of Test/Observation:

Unattended engines must be inspected. An engine must not be left unattended unless:

a. The air and hand brakes are applied, **AND**
b. The reverser lever is removed from all control stands on all units of the engine. If the reverser lever is not removable it must be locked in the neutral position, **AND**
c. The controls, switches, and circuit breakers are positioned so that traction power cannot be developed.

NORAC RULE 138 – HIGHWAY CROSSING PROTECTION

Purpose:

To ensure that proper procedures are followed with the issuance and compliance of mandatory directives related to the malfunction of highway crossing protection devices. Employees are monitored to ensure compliance with the following:

1. Crew properly notifies appropriate dispatcher that highway crossing devices malfunctioning.
2. Dispatcher issues a Form D to all affected trains; dispatcher effectively transmits and crews effectively receive Form D.
3. Approaching trains with Form D control train movement at appropriate authorized speed.
4. On-ground protection properly provided by crews, where necessary.

Type of Test/Observation:

Observe crew compliance when highway crossing protection devices are not functioning properly and that employees immediately notify the appropriate dispatcher. The dispatcher must issue a Form D Line 12 to all trains operating over the affected crossing(s). These trains must approach the crossing(s) prepared to stop and not proceed until protection against highway traffic is provided.

When an employee is required to provide on-ground protection at a highway grade crossing, he must give Stop signals to pedestrian and highway traffic until the leading end of the train is through the crossing. Stop signals must be given with a red flag or fusees by day and fusees or a white light at night.

NORAC RULE 708 – RADIO MESSAGES: CONTENT AND CODE WORDS:

Purpose:

To determine that the correct procedures govern the identification and content of messages when using the radio and that employees originate a call by:

1. Identifying their employing railroad.
2. Identifying their base station, wayside station, or yard station by name or other designation of station and location.
3. Identifying their mobile radio unit by:
   - Schedule number, if on a scheduled train.
   - Symbol and engine number if on an extra train.
   - TC followed by the number of the car if on a track car.
   - Other appropriate mobile unit identification.

Communication must be as brief as possible, using the appropriate key words.

Type of Test/Observation:

Supervisors may monitor radio transmissions of a train crew while riding with them, or while riding in another train. The supervisor may monitor not only that train, but other radio transmissions of any other employees (including other departments) using the radio to broadcast transmissions. Supervisors may monitor from the dispatcher's offices to determine dispatcher compliance as well as other employees.

NORAC RULE 711 – RADIO COMMUNICATION INSTEAD OF HAND SIGNALS

Purpose:

To determine that employees use proper radio communication and procedures when controlling a shoving, backing or pushing movement.

1. Employee directing the movement must specify a distance to be traveled. The distance specified must not exceed the distance known to be clear.
2. Movement must stop within one-half the specified distance, unless additional instructions are received.
3. The names of fixed signals affecting the movement must be communicated to the Engineer.

Type of Test/Observation:

Supervisors may monitor radio transmissions of a train crew while riding with them, or while riding in another train. Supervisors may also monitor from the dispatcher's offices.

PASSENGER TRAIN EMERGENCY PREPAREDNESS TESTS (49 CFR Part 239)

Purpose:

To determine if employee is able to correctly respond to or comply with the procedures as contained in the Emergency Preparedness Plan.

1. Employee is carrying a working flashlight.
2. The crew is aware of the proper announcements and can demonstrate the proper announcements to be made.
3. The employee knows the appropriate OCC to contact in an emergency.
4. OCC knows how to respond to the emergency; OCC emergency call list is validated periodically.

Type of Test/Observation:

The following instructions apply to these tests:

1. T&E Employees must be tested on their responsibilities regarding passenger train safety announcements, emergency announcements, on-board emergency communications, and emergency communications with the OCC.

2. OCC personnel must be tested on their responsibilities regarding emergency communications and protection procedures in the OCC.

3. Emergency preparedness tests may be conducted while an employee is required to actually perform an Emergency Preparedness Plan requirement, they may be conducted as part of a question and answer session with a supervisor or they may be conducted as part of a full-scale passenger train emergency simulation.

4. Emergency Preparedness tests must be recorded in the usual manner, except for the following information, which must also be entered:

   - **Test Code** – Use code "EPREP" for an Emergency Preparedness Test
   - **Test Number** – Use one of the following test numbers:

   1. Emergency Equipment: does each crewmember have a working flashlight on their person?

   2. On-Board Emergency Communications: do the Conductor and crew know what announcements to make in the event of an emergency situation? Determine knowledge of MBCR-4 (Customer Service Special Instructions)

   3. Emergency Communications with the Operations Control Center (OCC): does the Conductor or his designee know how to contact the appropriate control center in the event of an emergency?

   4. Emergency Communication at the OCC: do Control Center personnel know how to protect an emergency situation? Do Control Center personnel maintain an emergency call list?

SWITCHING OPERATIONS FATALITY ANALYSIS (SOFA) TESTS

Purpose:

To determine employees' knowledge and responsibilities of the following Five Life Savers as developed by the SOFA working group.

1. Discuss safety at the beginning of a job and when the work changes.
2. Communicate before action is taken.
3. Protect against moving equipment.
4. Secure equipment before action is taken.
5. Mentor less experienced employees to perform service safely.

To document SOFA tests, supervisors must use the following test codes:

- **Test Code** – SOFA
- **Test Number**
  - SOFA 5001 – Conductor's responsibility for safety instruction of employees.
  - SOFA 5010 – Job briefings at sign up and when conditions change.
  - SOFA 5204 – Keeping a lookout for approaching movements.
  - SOFA 5316 – Requirements before fouling equipment.
  - SOFA 5318 – When necessary to make adjustments to knuckles/drawbars.
  - SOFA 5800 – coupling or uncoupling equipment.
  - SOFA 5801 – orange armbands worn by employees working in yards with less than one year experience.

ANNUAL LOCOMOTIVE ENGINEER PERFORMANCE MONITORING

Purpose:

MBCR must ensure that all classes of Certified Locomotive Engineers possess and routinely employ the necessary skills to safely operate a train and/or locomotive. The test and/or observation program includes the annual monitoring of the operational performance and the operational conduct of its Engineers.

Types of Test and/or Observation:

In accordance with operational monitoring criteria in CFR 240.129 and CFR 240.303, each Engineer will be given at least one:

1. Unannounced operational monitoring observation **annually** by a designated supervisor of locomotive engineers (DSLE) who will accompany the engineer for one round trip, or for a sufficient duration to adequately evaluate performance.

2. Unannounced operational rules compliance tests by a railroad supervisor.

All operational rules compliance tests and observations, and operational monitoring rides will be documented on the appropriate form in writing by the person conducting the testing, as soon as practicable.

Each Engineer will be monitored at the controls of the type of train normally operated on that railroad or segments of railroad in which he/she is qualified to operate and will be of sufficient duration to adequately monitor performance. In evaluating the engineer's operational performance, the DSLE must objectively monitor and document performance, including:

- Ensure Engineer is carrying Engineer's certificate
- Compliance with federal safety rules
- Compliance with signal indications
- Compliance with mandatory directives, speed restrictions, etc.
- Proper train handling and brake application
- Proper use of horn, whistle
- Proper radio communication procedures

The DSLE will sign and date the Engineer's certificate immediately following the satisfactory completion of the operation monitoring observation.

Test Results:

Each Train Service Engineer will receive at least **one (1) unannounced operational rule test** each calendar year, which may include the following tests:

1. Compliance by the Locomotive Engineer with applicable railroad operating rules that require response to signals that display less than a "clear" aspect.

2. Compliance by the Locomotive Engineer with applicable operating rules, timetable, or other mandatory directives that require affirmative response by the engineer to less favorable conditions than that which existed prior to initiation of the test.

3. Compliance by the Locomotive Engineer with applicable railroad operating rules, timetable, or other mandatory directives, the violation of which by Engineers were cited by the railroad as the cause of train accidents or incidents in FRA reportable accident reports in the previous year.

These annual operational tests will be performed at various times during the normal service day and during normal hours of service operations, without prior notice to the engineer being tested.

The relevant data from the supervisor's test records of the engineer's success or failure on the rules compliance tests will be entered into the electronic database, accessible and retrievable upon request by authorized personnel and FRA representatives.

B. MECHANICAL DEPARTMENT

Mechanical Department supervisors should prioritize tests and/or observations of employees when performing federally required tests and inspections. In addition, other tests and/or observations must be performed utilizing Operating Rules, Safety Instructions, and Air Brake and Train Handling Instructions.

Examples of safety critical TESTS and/or OBSERVATIONS for Mechanical Department Managers include, but are not limited to:

BLUE SIGNAL TEST

Purpose:

To determine if the proper protection of employees is being afforded for those working on, under, or between equipment while servicing, inspecting, testing, and repairing equipment in the mechanical facility.

Type of Test/Observation:

The supervisor(s) conducting the test must be conversant with what is required per company policy and federal regulation. Observations will include:

- Whether workers, when preparing to work together on equipment, discuss the protection methods to be employed.
- Observe whether workers check for the absence/presence of blue signal protection prior to working on equipment.
- Observe whether blue signal (blue flag by day, blue light at night) is attached to each controlling locomotive at a location where it is readily visible to the engineer seated at the controls.
- Observe that blue signal protection is properly removed by the person or craft that placed it there before moving equipment on to or off the track.
- Talk with workers to determine their knowledge of blue signal protection requirements.

Test Result:

To comply with this test make direct, unannounced observations as well as engage employees in conversation to determine knowledge of rules and their practical application.

RULE G TEST/OBSERVATION

Purpose:

To ensure that MBCR employees while on duty or reporting for duty are in compliance with NORAC Rule G which prohibits the use or being under the influence of alcoholic beverages or intoxicants and also the use or being under the influence of any drug, medication, or other controlled substance – including prescribed medication – that would affect their alertness or safety.

Type of Test/Observation:

The supervisor(s) conducting the test must be conversant with what is required per company policy and federal regulation. Observations will include whether employee shows any signs or symptoms of impairment consistent with the drug and alcohol training the supervisor has received.

Test Result:

To comply with this test, supervisors must make a direct unannounced observation of employees reporting to their workplace or during their tour of duty. Supervisor must make face to face contact with employee and make direct observation of employee.

Failures of a Rule G Test/Observation must be documented according to the MBCR D&A policy and/or federal D&A regulation (49CFR219), where applicable.

AIR BRAKE TEST

Purpose:

To determine whether mechanical department employees are properly conducting initial terminal air brake tests.

Type of Test/Observation:

Supervisors may observe for the following:

- The employee inspects both sides of the train if required to view piston travel.
- Brake equipment must be properly secured, must not bind or foul, and piston travel is proper.
- Visually observe the rear car brake pipe pressure is proper, as indicted by an accurate gauge at the rear of the train.
- Assure brakes apply and release on each car and brake pipe leakage is proper.

Test Result:

To comply with this test, qualified supervisors must make direct, unannounced observations as well as engage employees in conversation to determine knowledge of rules and their practical application. Compliance is achieved when all components of the test procedure are successfully conducted.

EMERGENCY PREPAREDNESS

Purpose:

To determine whether a passenger train dispatched from the maintenance facility has all required safety equipment in accordance with 49 CFR Part 239 and company specifications.

Type of Test/Observation:

The supervisor will determine rule compliance by observing the following:

- Does each coach have the following equipment; a fire extinguisher, a pry bar, and a first aid kit for the entire train? If not, was it noted on the appropriate form?

Test Result:

Emergency preparedness tests compliance will be achieved when the supervisor ascertains, by walking through the train, that all required safety equipment and signage is in place. Additionally, supervisors must conduct records inspections to verify that emergency windows are periodically tested for operability in accordance with federal requirements.

Emergency Preparedness tests must be recorded in the usual manner, except for the following information, which must also be entered:

- **Test Code** – Use code "EPREP" for Emergency Preparedness Test

NORAC RULE 4 – JOB BRIEFING

Purpose:

To determine that employees whose duty requires coordination with other employees must hold a job briefing to review operational and safety conditions.

Type of Tests/Observation:

Directly observe or monitor radio to determine that they are be conducted face-to-face, or if not possible, by radio or telephone.

Test Results:

Employees are observed to conduct an initial job briefing and if conditions change, that they hold an additional job briefing to discuss the new conditions.

NORAC RULE 30 – TAMPERING WITH APPLIANCES AND OTHER EQUIPMENT

Purpose:

To determine that safety appliance and other equipment are operating as intended, without alteration by employees.

Type of Tests/Observation:

Determine that employees have not broken seals on interlocking appliances or other equipment except when specifically authorized to do so. Determine that employees have not altered, nullified in any manner, nor interfered with the normal intended function of any device or equipment on engines cars or other railroad property unless duly authorized.

Test Result:

Where seals are found to be tampered with, broken, missing, or authorized to be removed, a report must be made immediately to the Dispatcher or engine house foreman in charge of the territory where the defect is discovered.

NORAC RULE 104 – HAND OPERATED SWITCHES AND DERAILS

Purpose:

To determine that employees are conversant with and demonstrate the proper positioning and securing of switches and derails as in new Rule 104 found in the "Human Factors" regulation.

Type of Test/Observation:

Supervisors' observation of employees' compliance with the use of switches and derails:

1. Be qualified on the operating rules relating to their operation;
2. Conduct a job briefing before work is begun, each time a work plan is changed, and at completion of the work;
3. Visually determine that switches are properly lined for the intended route and that no equipment is fouling the switches;
4. Visually determine that the points fit properly and the target, if so equipped, corresponds with the switch's position;
5. After operating a switch and before making movements in either direction over the switch, ensure that the switch is secured from unintentional movement of the switch points, when equipped with a hook, lock or latch;
6. Ensure that a switch is not operated while rolling and on-track maintenance-of-way equipment is fouling the switch, or standing or moving over the switch; and
7. Confirm switches and derails are in proper position before, during and after use.
8. After operating a switch, ensure that when not in use, each switch is locked, hooked, or latched, if so equipped.
9. Promptly report any switch, derail or securement device that is found to be defective.

Test Results:

Employees demonstrate compliance with the requirements above.

NORAC RULE 551 – TESTING CAB SIGNAL APPARATUS: DEPARTURE TEST

The cab signal apparatus on the leading end of the first engine or control car of each train must be tested and found to be operational within 24 hours before the engine or control car leaves its initial terminal.

If test equipment is not available at a point where an intermediate unit will be required to become a lead until, this unit must also be tested at the initial terminal.

The employee performing the test must post a signed copy of the test results in the cab of the locomotive and must leave a signed copy of the test results at the test location.

If the cab signal apparatus is de-energized after the departure test has been made, it must be tested again before entering equipped territory. Engines dispatched from points in CSS territory to points where test racks are not provided must have the cab signal apparatus energized for the entire trip. Test racks at locations other than terminals will be specified in the Timetable.

NORAC RULE 708 – RADIO MESSAGES: CONTENT AND CODE WORDS

Supervisors may monitor radio transmissions of a train crew while riding with them, or while riding in another train. The supervisor may monitor not only that train, but other radio transmissions of any other employees (including other departments) using the radio to broadcast transmissions.

To originate a call, employees must:

1. Identify their employing railroad

2. Identify their base station, wayside station, or yard station by name or other designation of station and location

3. Identify their mobile radio unit by:

    - Schedule number, if on a scheduled train
    - Symbol and engine number if on an extra train
    - TC followed by the number of the car if on a track car
    - Other appropriate mobile unit identification

Communication must be as brief as possible, using the appropriate key words.

C. ENGINEERING DEPARTMENT

Engineering Department supervisors should prioritize tests and observations of employees when performing federally required tests and inspections. These tests must be performed in addition to Operating Rules, Special instructions, Roadway Worker Protection, Safety Instructions, Special Instructions Governing Construction & Maintenance of Signals and Interlockings.

Examples of safety critical TESTS and/or OBSERVATIONS for Engineering Department Managers include, but are not limited to:

RULE G TEST/OBSERVATION

Purpose:

To ensure that MBCR employees while on duty or reporting for duty are in compliance with NORAC Rule G which prohibits the use or being under the influence of alcoholic beverages or intoxicants and also the use or being under the influence of any drug, or other controlled substance – including prescribed medication – that would affect their alertness or safety.

Type of Test/Observation:

The supervisor(s) conducting the test must be conversant with what is required per company policy and federal regulation. Observations will include whether employee shows any signs or symptoms of impairment consistent with the drug and alcohol training the supervisor has received.

Test Result:

To comply with this test, supervisors must make a direct unannounced observation of employees reporting to their workplace or during their tour of duty. Supervisor must make face to face contact with employee and make direct observation of employee.

Failures of a Rule G Test/Observation must be documented according to the MBCR D&A policy and/or federal D&A regulation (49CFR219), where applicable.

NORAC RULE 4 – JOB BRIEFING

Purpose:

To determine that employees whose duty requires coordination with other employees must hold a job briefing to review operational and safety conditions.

Type of Tests/Observation:

Directly observe or monitor radio to determine that they are be conducted face-to-face, or if not possible, by radio or telephone.

Test Results:

Employees are observed to conduct an initial job briefing and if conditions change, they hold an additional job briefing to discuss the new conditions.

NORAC RULE 104 – HAND OPERATED SWITCHES AND DERAILS

Purpose:

To determine that employees are conversant with and demonstrate the proper positioning and securing of switches and derails as in new Rule 104 found in the "Human Factors" regulation.

Type of Test/Observation:

Supervisors' observation of employees' compliance with the use of switches and derails:

1. Be qualified on the operating rules relating to their operation;
2. Conduct a job briefing before work is begun, each time a work plan is changed, and at completion of the work;
3. Visually determine that switches are properly lined for the intended route and that no equipment is fouling the switches;
4. Visually determine that the points fit properly and the target, if so equipped, corresponds with the switch's position;
5. After operating a switch and before making movements in either direction over the switch, ensure that the switch is secured from unintentional movement of the switch points, when equipped with a hook, lock or latch;
6. Ensure that a switch is not operated while rolling and on-track maintenance-of-way equipment is fouling the switch, or standing or moving over the switch; and
7. Confirm switches and derails are in proper position before, during and after use.
8. After operating a switch, ensure that when not in use, each switch is locked, hooked, or latched, if so equipped.
9. Promptly report any switch, derail or securement device that is found to be defective.

Test Results:

Employees demonstrate compliance with the requirements above.

NORAC RULE 133 – REMOVING A TRACK FROM SERVICE

Purpose:

To determine employee's compliance with Form D Line 4, Special Instruction 133-S1, and Special Instruction 905-S1.

Type of Test/Observation:

Supervisors must conduct tests by monitoring radio communication between the employee and the train dispatcher or make direct observation of the employee's compliance. The supervisor must note:

- The employee requesting the Form D Line 4 clearly states name, occupation, location, other relevant identification (equipment number, how many pieces of equipment, etc.)
- Employee in charge makes a written record of the Form D Line 4 issued, in the prescribed format.

- Employee in charge does not engage in work until the contents of the Form D Line 4 have been communicated to the work group, including the working limits and time limits of the permit.
- Employee in charge does not engage in work until supplemental protection as required by Special Instruction 133-S1 has been provided protecting the limits of the work area.
- Employee in charge does not engage in work until confirmation of protection as required by Special Instruction 905-S1 has been ascertained.

Test Result: To comply with this test, all aspects of the process must be monitored and evaluated for adherence to rules; partial compliance is not sufficient due to the safety criticality of these rules.

NORAC RULE 708 – RADIO MESSAGES: CONTENT AND CODE WORDS

Purpose:

To determine that the correct procedures govern the identification and content of messages when using the radio.

Type of Test/Observation:

Supervisors may monitor radio transmissions of a train crew while riding with them, while riding another train the supervisor may monitor not only that train, but other radio transmissions of any other employees (including other departments) using the radio to broadcast transmissions. Supervisors may monitor from the dispatcher's offices to determine dispatcher compliance as well as other employees.

Test Results:

To originate a call, employees must:

a. Identify their employing railroad
b. Identify their base station, wayside station, or yard station by name or other designation of station and location
c. Identify their mobile radio unit by:
   - Schedule number, if on a scheduled train
   - Symbol and engine number if on an extra train
   - TC followed by the number of the car if on a track car
   - Other appropriate mobile unit identification

Communication must be as brief as possible, using the appropriate key words.

NORAC RULE 803

Purpose:

To determine employee's compliance with NORAC Rule 803.

Type of Test/Observation:

Supervisors must conduct tests by monitoring radio communication between the employee and the train dispatcher or make direct observation of the employee's compliance. The supervisor must note:

- The employee requesting Form D Line 2 clearly states name, occupation, location, and other relevant identification (equipment number, how many pieces of equipment, etc.)
- Employee makes a written record of the Form D Line 2 issued, in the prescribed format.
- Employee does not engage in work until the contents of the Form D Line 2 have been communicated to the work group.

Test Result:

To comply with this test, all aspects of the process must be evaluated for adherence to rules; partial compliance is not sufficient due to the safety criticality of these rules.

V. Test and/or Observation Quotas

A. Transportation Department

Each month Transportation Supervisors must conduct a variety of test and/or observations focusing on safety critical rules and instructions that employees utilize in the course of their duties. These tests and/or observations must be conducted at various times of the day and on every day of the week.

Transportation Department Supervisors are governed by the monthly Efficiency Testing Plan which is submitted to the FRA per the Safety Compliance Agreement. The monthly Efficiency Testing Plan lists various areas to focus on based on an analysis of prior rule violations and accident/injury data.

The appendix lists numerous tests and/or observations that Transportation Supervisors may choose from when conducting their tests and/or observations.

In addition, the following collectively applies to all Transportation Supervisors:

MONTHLY

Each Transportation Supervisor must input at least 25 tests and/or observations each month.

SEMI-ANNUALLY

Each Road and Yard Engineer must receive at least 1 radar test per half-year.

All supervisors must collectively input 50 foreign tests and/or observations per half-year.

All supervisors must collectively input at least 15 barricade tests per half-year.

Each Road Engineer operating push-pull trains in non-cab signal territory must have 1 FRA 202A (Signal Calling) and 1 FRA 201C (Delayed in Block) per half-year.

ANNUALLY

Each Road and Yard Engineer must have 1 speed tape or event recorder analysis test per year.

Each Road and Yard Engineer must have 1 Engineer evaluation inputted as FRA 1875 per year.

Each Road and Yard Engineer must have 1 FRA 303C (Condition less than Favorable) per year.

Whenever possible, Transportation Supervisors must also place emphasis on inputting Rule G, SOFA, Emergency Prep, "Human Factors" rules, joint testing with other foreign railroad supervisors, and other safety critical tests and/or observations as deemed necessary by monthly analysis of critical data.

The following Transportation Department Managers are currently required to perform Tests and Observations as required by this Test and Observations Program:

Jacqueline Boumel	Trainmaster
Rick Currier	Trainmaster
Dennis Drumheller	Road Foreman
Lamonte Frazier	Trainmaster
Michael Galvin	Trainmaster
Kevin Kadlick	Road Foreman
Jeanne McGuire	Trainmaster
Richard Murphy	Chief Train Dispatcher
Mark Neverett	Road Foreman
Francis O'Connor	Trainmaster
Barry Osborne	Chief Train Dispatcher
Mark Patriacca	Road Foreman
John Rossi	Trainmaster
James Shugrue	Rules Examiner
Juanetta Silver	Trainmaster
Jacqueline Wentzell	Trainmaster
Jonathan White	Trainmaster

B. Mechanical Department

Each Month:

Each Mechanical Supervisor who directly supervises Mechanical Department employees who move engines, provide blue signal protection, test cab signals, test air brakes, or use radio or hand signals to direct train or engine movements must conduct at least one test and/or observation per month on at least 15 different Mechanical Department employees. If the Mechanical Supervisor supervises less than 15 employees, he or she still must conduct a total of 15 tests and/or observations each month.

Mechanical Department Supervisors are governed by the monthly Efficiency Testing Plan which is submitted to the FRA per the Safety Compliance Agreement. The monthly Efficiency Testing Plan lists various areas to focus on based on an analysis of prior rule violations and accident/injury data.

The following Mechanical Department Managers are currently required to perform Tests and Observations as required by this Test and Observations Program:

Mark Allen	Asst. Superintendent S&I – South
Orlando Cifuentes	Asst. Superintendent Coach House – BET
Paul Cunningham	Asst. Superintendent Coach House – Readville
Victor Diaz-Miron	Superintendent Coach House – BET
Dave Fadden	Asst. Superintendent S&I – BET
Pete Finnegan	Superintendent S&I – South
Paul Flynn	Asst. Superintendent Coach House – Readville
Paul Garnett	Locomotive Shop Superintendent
Randy Gould	Superintendent S&I – BET
Greg Kirkham	Asst. Superintendent Locomotive Shop
John Leetch	Superintendent S&I – BET & Outlying Points North
Dan Maguire	Superintendent S&I – Southampton St. & Outlying Points South
Jerry O'Shea	Asst. Superintendent S&I – South
Roy Silva	Asst. Superintendent S&I

C. Engineering Department

Each Month

Each Engineering Supervisor who directly supervises Engineering Department employees who are governed by the operating rules or RWP Rules must conduct at least 1 test per quarter and 10 observations per month on at least 10 different Engineering Department employees. If the Engineering Supervisor supervises less than 10 employees, he or she still must conduct a total of 10 tests and/or observations each month.

Mechanical Department Supervisors are governed by the monthly Efficiency Testing Plan which is submitted to the FRA per the Safety Compliance Agreement. The monthly Efficiency Testing Plan lists various areas to focus on based on an analysis of prior rule violations and accident/injury data.

Engineering Supervisors are to pay particular attention to ensure that:

- Entries into the TESTS system must be the result of planned visits to work locations where managers observe employees in the performance of their duties.
- Managers perform tests and observations at all hours of the day and not just at the times employees report to work.
- Managers focus their tests and/or observations on safety critical rules, procedures, and Special Instructions including but not limited to:

    - Supplemental protection
    - Form D compliance
    - "On Track Safety" compliance
    - Rule G compliance
    - Lock out/tag out compliance
    - Movement Permit compliance
    - Job Briefings
    - Removing tracks from service
    - Proper use of radios and radio procedure

- A member of the Engineering Department staff will audit a minimum of 10 Job Briefing forms submitted for the month and enter the results of at least 10 different employees into the system.

- Managers must document all failures and track these failures so that discipline can be initiated when necessary

The following Engineering Department Managers are currently required to perform Tests and Observations as required by this Test and Observations Program:

James Bond	Roadmaster – Track
Steve Campione	Senior Engineer – Electrical
Courtney Clark	Roadmaster – B&B
Ralph Collins	Roadmaster – Communications
Tom Ford	Senior Engineer – Facilities
Bob Hartley	Senior Engineer – B&B
Jim Howland	Roadmaster – Track
Patty Mallon	Project Engineer
John McCabe	Roadmaster – C&S
Joseph McCabe	Roadmaster – Signal Construction
Joe McNall	Senior Engineer – C&S North
Jim Merrill	Engineer – Construction
Matt Palazzolo	Roadmaster – C&S South
Rob Proulx	Roadmaster – Track
Dana Rodricks	Roadmaster – Track
Joe Rodrigues	Roadmaster – Track
Joe Routhier	Roadmaster – C&S
Kevin Smith	Roadmaster – C&S
Jim Welch	Roadmaster B&B – North
Derek Weldon	Senior Engineer – C&S South

VI. Administration of Test Data

There are two forms that must be used to record tests/observations for data entry into the MBCR computer reporting system known as ROSS:

1. Form 1872, "Employee Rules Test and Observation Report", which must be used when a supervisor is unable to directly input the test or observation into the ROSS program. When using a Form 1872, the supervisor must sign it.

2. Form 1875, "MBCR Locomotive Engineer Evaluation Form", is used to record a supervisor's evaluation of an Engineer or Engine Certified Supervisor's performance in operating a train or engine. Evaluations for Engineers in road service must last for a least one (1) trip of the assignment. Evaluations for Engineers in yard service must last for at least two (2) hours of actual throttle time. When using a Form 1875, the supervisor must sign it. When evaluations have been completed, a copy of the evaluation form must be given to the engineer.

Test and observation documentation (e.g., employee name, observation made, test result, etc.) shall be made immediately following the test or observation occurrence to ensure that accurate data is compiled. This data must be entered into the ROSS System as soon as practicable thereafter.

Retention of Records

In order to satisfy the record keeping requirements of 49 CFR 217.9, division headquarters must retain a copy of its monthly "Tests by Employee" reports for one year following the end of the year in which the tests were conducted. These reports must be made available to representatives of the Federal Railroad Administration for inspection and copying during regular business hours.

Auditing Responsibilities

Each Quarter

Supervisor Compliance and Quality Review

A quarterly review will be conducted jointly by each departmental program administrator and the appropriate department manager responsible for T&O compliance. The reviewers will look at T&Os at intervals of 3, 6, 9, and 12 months. To conduct this review, the following reports will be run:

- A compilation of all Tests and /or Observations recorded in the previous quarter
- Operating Rule Violations for the last 12 months
- FRA inspection report summaries, summarizing deficiency reports

Reviewers will examine:

- ☐ The compilation report of all T&O's for the last quarter.
- ☐ Location of radar tests; look for variety of locations and times being performed.
- ☐ All Tests and/or Observations on the rules and special instructions that pertain to the "Human Factors" regulation.
- ☐ SOFA Tests and/or Observations, though if a supervisor does not have any regularly scheduled switching movements (by either a road or yard crew), they can review SOFA rules periodically with road crews.
- ☐ Emergency Preparedness Tests and/or Observations
- ☐ Rule violations reports will be run for the territory that the supervisor is responsible for. These reports will be distributed periodically to Departments Heads to use as guidance in focusing T&Os conducted, as well as to be used in assigning refresher training and revising existing training programs for effectiveness.
- ☐ The monthly Efficiency Testing Plans for their department and ensure that supervisors are concentrating on the areas identified by these plans.

The **"Specific Areas for Improvement"** should be primarily based on those areas shown above, however, other areas that were observed during the review should be noted, though they should be specific and quantifiable.

Annual Report

In accordance with 49 CFR 217.9, MBCR will compose a report on or before March 1st of each year, summarizing the operational tests and inspections conducted on the division during the previous year. The report must show:

- Total Number of Tests and/or Observations per Supervisor
- Types of Tests and Observations
- Results of each operational test and inspection.

A copy of each annual report must be retained at system headquarters for three (3) years following the end of the year in which the tests were conducted. The reports must be made available to representatives of the Federal Railroad Administration for inspection and copying during regular business hours.

APPENDIX A

The following table lists many of the NORAC Rules that supervisors may choose from when conducting their tests and/or observations.

RULE	METHOD OF TEST OR OBSERVATION	HOW COMPLIANCE IS ACHIEVED	SUPERVISOR
A		Ensure employees have current books they are required to carry	
C		Ensure employees pass written examination	
G		Ensure employees comply with Rule G and Company policy for D&A	
J		Ensure employees are wearing proper uniform	
P		Ensure engineers comply	
Q		Ensure employee subject to Hours of Service Act comply	
S		Ensure employees work safely	
T		Ensure employees report at their prescribed times	
1	Observe employee reporting for duty	Ensure employee possesses all current bulletins in effect	
3	Observe that employee is wearing a watch	Ensure employee's watch is displaying the correct time	
4	Observe employees job briefing. **Test= change the conditions, new briefing?**	Ensure employees hold a proper job briefing, and an additional briefing if conditions change	
10	Train or TC is equipped with proper flagging equipment	Ensure proper flagging equipment ready for immediate use	
11	Flags and lights during flagging	Ensure flags and lights of the prescribed color are used at the proper time	
13	Observe employee using hand signals	Ensure employee uses hand signals in the prescribed manner	
14	**TEST=Leave an unattended fusee on main track or controlled siding**	Ensure train stops and then proceeds 1 mile at restricted speed	
16		Ensure blue flag protection has been properly utilized	
19	Observe crew using engine whistle	Ensure when required and not in quiet zones	
19b	Train must sound horn when roadway workers are present **TEST= stand adjacent to track with**	Ensure whistle or horn is sounded for Roadway Workers	

	vest and/or hard hat on		
20		Ensure bell is sounded where required	
22	Observe proper display of headlights and ditch lights	Ensure headlights and ditch lights are displayed when required	
23	Observe train shoving cars	Ensure white light displayed on leading end	
24	Observe marker(s)	Ensure rear of the train displays marking devices	
30	Tampering with seals, locks, cut outs etc.	Ensure employees have not tampered with devices	
70	Observe employee inspecting cars when no car inspector is on duty	Ensure employees have proper inspection paperwork prior to departure	
71		Ensure employees comply with flat spots restrictions	
72	Observing a passing train for defects, and proper lights.	Employee promptly reports any defect which may affect the safe movement of all train	
80		Ensure employees comply with the requirements of Restricted Speed	
90	Observe train delay	Ensure employees promptly notify the dispatcher when train is delayed	
91		Ensure Conductor gives train signal to proceed	
92		Ensure trains do not depart passenger stations early unless instructed	
93	Observe Employee moving equipment within yard limits. **Test=non-signaled yard limits, test restricted speed (using barricade)**	Ensure employee operate equipment in compliance with rule 93 movements within yard limits.	
94a		Ensure qualified employees located on the head end communicate the names of signals and also employees communicate restrictions to the Engineer	
94b		Ensure train crews call signals to each other when necessary	
97	Observe equipment movement on a running track. **TEST=any restricted speed test.**	Ensure employee does not occupy running track without proper authority	

98	Observe movement on tracks not governed by ABS, DCS or interlocking Rules. **TEST=any restricted speed test.**	Ensure movements are made at restricted speed.	
100		Ensure couplings of passenger equipment stop first, then 4 MPH	
101		Ensure employees use precautions when switching	
104b	Observe position of switch.	Ensure switch in normal position after last use.	
104b	Observe position of derail.	Derail in normal position after last use.	
104g	Observe employee fouling track at hand operated switch.	Employee does not foul track for movement until all appliances are properly lined.	
108	Observe employee securing engine.	Employee leaves unattended engine secured as required by law.	
109	A sufficient number of hand brakes must be applied on cars to make them secure.	Employee must ensure (test) that a sufficient number of hand brakes have be applied on cars to make them secure.	
116	Observe shoving equipment (except switching, making up trains in yard, or flagging).	Employee is stationed on leading end to control movement.	
116	**Test: Radar to insure not exceeding 30mph.**		
121	Train must not operate through a passenger station occupied by a train receiving or discharging passengers.	Train does not operate through a passenger station occupied by a train receiving or discharging passengers.	
122	Trains not make unscheduled stops with authority.	Ensure Dispatcher authorizes unscheduled stop.	
124	Trains must not exceed maximum authorized speed. **TEST: Radar test to ensure compliance.**		
131	Observe employee performing flagging duties while assigned to protect work location of railroad/private contractors.	Employee protects work locations with form D, foul time or makes non-controlled track inaccessible	
132	Observe protecting for safe passage of trains.	Employee receives foul time or line 4 if disturbing structure	

132	Observe Dispatcher applying Blocking devices.	Properly insures no conflicting movements and applies blocking devices prior to issuing permission to foul track.	
133a	Observe Dispatcher applying Blocking devices	Properly insures track is clear and blocking devices applied before giving authority to remove track from service.	
133b	Observe that proper authorities have been listed in Form D address.	Observe Form D for proper addressees. Employee requesting track and Operators controlling entrance to the track.	
133c	Observe proper out of service limits established.	Observe each end of out of service limits have been defined by whole MP, Station/physical characteristic location or track barricade or flagman at designated location.	
133d	Observe movements do not exceed Restricted Speed. **Test-Radar Test to assure compliance.**	Observe movements operate not to exceed Restricted Speed and comply with defined limits of out of service track. (Intermediate Interlockings)	
133e	Observe additional equipment getting proper authority to enter out of service limits.	Observe additional equipment receives permission from employee in charge, shown or read copy of Form D or has copy of BO that carries such information. If stop signal is involved, observe that 241 authority has been received from Dispatcher. Also observe that employee in charge has maintained a written record of equipment id and time allowed to out of service area and time that equipment has cleared the limits.	
134a	Movements in direction of out of service must be notified by bulletin Order or Form D line 4 of out of service limits.	Observe that crew has proper Bulletin or Form D containing and have confirmed same with Dispatcher, before Dispatcher clears signal leading toward out of service track.	

134b	Movements operating in the out of service track must not enter in service portion without permission of dispatcher.	Observe reception of proper authority.	
135a	Protection of Working Limits, when working on or fouling the track. Working Limits refers to the area designated by Form D line 5 or Bulletin Order. Must be identified by Whole MP or physical characteristics.	Ascertain, through observation, that Form D has been issued to employee requesting the track and that each train approaching the obstructed area has either Form D line 5 information or, that if published in Bulletin Order, train has the bulletin in their possession.	
135b	The approach to Working Limits must be indicated by an Approach sign, which will not apply when permission is received to proceed past the Stop Sign. The Working Limits must be indicated by a Stop sign and a working limits Resume speed sign.	Observe the proper placement of signs is in place.	
135c`	Dispatcher must issued Form D line 5 to employee in charge only after confirming that track to be used is clear of movements not associated with the Working Group. The employee in charge must advise Dispatcher that all signs associated with working Group have been properly placed.	Observe the Dispatcher and Employee in charge have complied with their duties.	
135d	Unless a Working Limits Speed Limit Sign (WLSLS) is displayed, no trains may enter Working Limits without permission of employee in charge (EIC). Such employee must not allow movements into the working limits nor display WLSLS until assurance has been received that the track through Working Limits is not obstructed, and all Roadway workers notified. Trains must not exceed 30MPH through Working	Observance of proper procedures before trains are allowed to enter working limits. **Tests may be performed by Radar to ensure proper speed is observed through Working Limits.**	

	limits unless EIC has designated a higher or lower speed. (EXCEPTION: Trains and track cars that will be performing maintenance within the Working Limits: 1. May be admitted by EIC while the Working limits are still obstructed. 2. Must operate at Restricted Speed. 3. Must not leave Working Limits without proper authority.		
135e	Interlocking switches with the Working Limits must be properly lined and secured with blocking devices which must not be removed without permission of EIC of Working Limits. Interlocking Signals within Working limits are in service and compliance of such signals mandatory. Before a dispatcher may clear a signal diverting a train into Working limits, Dispatcher must confirm with engineer that the train has permission to enter Working limits.	Observe that Dispatcher has properly lined and blocked all necessary switches. Observe that BDA's are only removed with the EIC permission. Observe that proper communication between Engineer and Dispatcher confirming authority to enter working limits has taken place before the signal authority is given to train to divert into Working Limits.	
135f	Any train operating on track at such time Working limits become effective, must continue at normal speed until clearing such limits Dispatcher must not issue authority to EIC of Working limits until movement is clear of Working Limits.	Observe Dispatcher for proper compliance.	
136a	Observe proper initiation of Emergency broadcast is made by employee.	Ensure proper emergency procedure is followed, including Dispatcher notification.	

136b	Flag protection of adjacent tracks in both directions must be provided immediately. Inspection of equipment must be done to ensure no dangerous conditions exist before movement may be allowed to resume.	Observe that employees provide proper flag protection. Complying with distance rules. (Rule 130) Observe that such employees must maintain protection until recalled or until it is confirmed that track is not obstructed. Observe proper inspection of equipment and track area and results of inspection relayed to Dispatcher.	
136c	All trains that receive information that train is in emergency on adjacent track must operate as follows: 1. Trains operating in same direction must reduce to Restricted speed from 1 mile before train in emergency and continue at Restricted Speed until they pass the head end of the train in emergency. 2. Trains operating in opposite direction, must reduce to restricted speed from head end of train in emergency, and continue at Restricted Speed until one mile beyond rear end of the train in emergency.	**Tests: Radar to ensure compliance with Restricted Speed.**	
136d	Dispatcher/Operator must not allow trains to operate on adjacent track within the block of the train in emergency with out first notifying them of such information: Train in emergency's direction, track, location and identity.	Observe proper communication is made to all affected trains.	

136e	Lite engines and trains equipped exclusively with passenger carrying equipment need not make emergency broadcast if after emergency application of brakes occurs, they can immediately ascertain they are not fouling the adjacent track. Crews must notify Dispatcher/Operator promptly the reason for their stop and the fact they are not fouling adjacent track. Crews must also perform inspection; relaying results to Dispatcher/Operator, of entire train to ensure they are not derailed and no other conditions exist that endanger train movement.	Observe proper notifications and inspections are performed.	
137a	To assist a disabled train in 261 territory, Dispatcher may permit an opposing movement. Form D line 8 must be issued to disabled train to ensure it will not make any further movements until assisting train arrives. From d line 9 must be issued to assisting train, operating at Restricted speed to where train is disabled.	Observe Dispatcher issues proper authorities. **Test: Radar test may be performed on assisting train to ensure compliance with Restricted Speed.**	

137b	If train is disabled in 251 territory, Dispatcher may authorize opposing movement only after Form d line 8 is issued to disabled train to ensure no further movements are made until assisting train has arrived. Crew from disabled train must provide flag protection against opposing movement. Dispatcher must issue Form D line 2 to authorize assisting train to operate against current of traffic to a point, whole MP or station, 2 miles prior to reaching disabled train. Dispatcher must also authorize assisting train with Form D line 9 to operate at Restricted Speed from the end point of line 2 to location of disabled train.	Observe proper issuance of Form D authorities. Observe flag protection is provided for. **Test: Radar may be performed to ensure compliance with speed in SPI-401-S2, and Restricted Speed.**	
137e	Flag protection must be provided for by crewmember of disabled train protecting against opposing movement.	Observe flag protection is properly provided.	
138c	If automatic highway crossing warning device malfunction, Dispatcher must be notified immediately. Dispatcher will notify all trains due to pass over crossing of failure by providing Form D line 12, instructing trains to protect such crossing.	Observe notification and proper protect of crossing. **Test: Call in a malfunction at highway crossing, testing the notification of needed personnel, the issuance of Form D and or Blocking Device protection, train compliance and response of employee called to repair.**	

140a	Foul time may be issued by Dispatcher or Operator when authorized by Dispatcher.	Observe Dispatcher/Operator has Stop Signals displayed and proper blocking devices applied.	
140b	Permission to foul track must include title of employee requesting foul time, track designation, track limits and time limits. Receiving party must repeat this permission Dispatcher/Operator must confirm.	Observe proper procedure and recording of foul time record by Dispatcher/operator and or requesting employee.	
140c	Releasing of Foul Time protection must include title and name of employee releasing time, track designation and limits being released. Information must be repeated by Dispatcher/Operator and confirmed by employee releasing foul time.	Observe proper procedure and removal of blocking devices after release of foul time.	
141	Inaccessible track	Observe the establishment of working limits on non-controlled track per RWP.	
160	Issuing Form D	Observe the proper prefix and numbering sequence is used in the issuance of Form D.	
161	Properly completing Form D	Observe information contained within Form D is without alteration, erasure and is legible. Also that applicable lines are circled and commas used to separate numbers or locations listed in series. Observation of compliance made be made of employee issuing and employee receiving Form D.	
162	Form D addresses	Observe employee issuing Form D for proper addresses for T&E, train ID and engine numbers, track car ID and Foreman or Pilot for track cars.	
163	Photocopies of Form D; additional written copies.	Observe Operator's additional written copies for initials and office copy containing time of each repetition.	

165a	Form D delivery may be executed by radio, telephone, by electronic means, or physically delivered in person.	Observe the delivery portion filled out properly if delivered in person.	
165b	Dictation and repeating of Form D.	Observe that person receiving Form d is not operating controls of a moving train. Observe that when dictated and repeated employees read aloud and plainly pronounce all preprinted and written portions. Observe the "Time Effective" is not given until Form D has been repeated correctly.	
165c	Electronic Transmission of Form D.	Observe employees verification of Form D number and date with Dispatcher.	
166	Reading and complying with Form D.	Observe receiving employees for compliance of Form D content.	
168	Errors in Form D	Observe dispatcher issuing Form D, if error is discovered before time complete is given form D must be marked void and new Form D issued with next sequential number. If error is discovered after time complete is given, observe Dispatcher canceling Form D and then reissuing.	
169	Additions to form D Once Form d is made effective only the following additions made be made. 1. Form D cancellation information 2. Track is clear information. 3. Additional line 2 and line 3 authorities.	Observe Dispatcher for compliance.	

170	Form D Delivery at Interlocking.	Observe Dispatcher request and Operator compliance of Stop Signal displayed and proper blocking devices applied and recorded. Observe notification of train that Form D authority is to be received at interlocking, and that blocking devices are not removed until Engineer has acknowledged he is to receive Form D.	
171	Physical delivery of Form D. **Test=Radar performed to assure train not exceed 30 MPH.**	Observe train receiving Form D.	
173	Delivery of Form D to relieving crew.	Observe relieving crew communicating with Dispatcher for instructions if crew being relieved is not available...	
175	Observe proper sequencing of locations of speed restrictions.		
176	Effective period of Form D.	Observe cancellation or fulfillment of Form D.	
177	Cancellation of Form D	Observe cancellation of Form D.	
241	Passing a Stop Signal. Train must have verbal permission of Dispatcher.	Observe that train has come to complete stop before requesting permission to pass Stop Signal.	
241	Verbal permission to pass Stop Signal.	Observe Dispatcher has properly position switches for route to be traveled, has confirmed no conflicting moves have been authorized and blocking devices applied against opposing movements whenever Stop Signal governs entrance to a track where Rule 261 is in effect. Observe proper verbiage compliance and that Operator only give this permission after authorized by Dispatcher.	

241b	After receiving 241 permission train must operate at Restricted Speed until train has cleared interlocking or spring switches and entire train (SPI 241-S1) has passed a more favorable signal. entered non-signaled DCS territory or entered Rule 562 territory with Form D authorizing Rule 563. Speed must not be increased in CSS territory with operative cabs until trains has run its length or 500 feet, whichever distance is greater, past a location where a more favorable cab signal was received.	**Test=Signal may be put to Stop by C&S to determine compliance.** **Test=Radar may be performed to determine compliance with Restricted Speed.**	
242	Observe employee at location where signal is either imperfectly displayed or missing and check for compliance.		
243	Next governing Signal. Trains may operate in accordance to the next governing signal when that signal can be plainly seen and if the train is not required to operate at Restricted Speed.	Observe compliance.	
244	Signal requiring a stop.	Observe train approaching fixed signal in Stop position, noting that stop is made before any part of movement passes Stop signal. **Test=Stop Signal test, with cooperation of Dispatcher and C&S may be performed to ensure compliance. Barricade may be utilized.**	
251	Movements governed by current of traffic.	Observe movement operating with DCS authority against established current of traffic. Observe proper Form D and protection provided. **Test=Radar test to determine speed compliance.**	

279	Observe employee compliance with cab signal indications.		
280a	Clear to next interlocking signal.	Observe movement and action of employee.	
281	Clear	Observe movement and action of employee.	
281a	Cab Speed	Observe movement and action of employee.	
281b	Approach limited	Observe movement and action of employee.	
281c	Limited Clear	Observe movement and action of employee.	
282	Approach Medium	Observe movement and action of employee.	
282a	Advance Approach	Observe movement and action of employee.	
283	Medium Clear	Observe movement and action of employee.	
283a	Medium Approach Medium	Observe movement and action of employee.	
284	Approach Slow	Observe movement and action of employee.	
285	Approach	Observe movement and action of employee.	
286	Medium Approach	Observe movement and action of employee.	
287	Slow Clear	Observe movement and action of employee.	
288	Slow approach	Observe movement and action of employee.	
290	Restricting	Observe movement and action of employee.	
291	Stop and Proceed	Observe movement and action of employee. **Test=Set up with C&S or Dispatcher. Possible use of barricade.**	
292	Stop signal	Observe movement and action of employee. **Test=Set up with Dispatcher and/or C&S to check for compliance. Possible use of barricade.**	

296a	Approach Speed limit Sign	Observe movement and action of employee.	
296b	Speed limit Sign	Observe movement and action of employee.	
296c	Resume Speed sign	Observe movement and action of employee.	
296d	Diverging Approach Speed limit Sign	Observe movement and action of employee.	
297	Approach Sign	Observe movement and action of employee.	
297a	Stop sign	Observe movement and action of employee.	
297c	Working limits Resume speed sign	Observe movement and action of employee.	
297d	Diverging Approach Sign	Observe movement and action of employee.	
298	Distant signal marker	Observe movement and action of employee.	
298a	Delay in Block Sign	Observe movement and action of employee.	
400	Form D line 2 authority need to occupy non signaled DCS territory.	Observe proper issuance of Form D authority.	
400b	Form D line to against current of traffic.	Observe Dispatcher's blocking device application to prevent opposing movements and issuance of Form D line 2.	
400c	Additional line 2 authority.	Observe Dispatcher compliance with determine clear block before issuing additions. Observe compliance with transmission of additional authority, Dispatcher not giving time added until addition information is repeated correctly.	

401	Observe passenger trains operating in Non-Signaled DCS territory. **Test=Radar test may be used to ensure compliance with Rule 401 and Special Instruction 401-S2** **Test=Barricade test may also be used at non-interlocked facing point switches to ensure compliance with Special Instruction 401-S1**		
402	Reverse movement in Non-signaled DCS territory when operating in specified direction. **Test=Radar test to ensure compliance with Restricted Speed.**	Observe procedures, either Dispatcher issuing new Form D. Crew receiving verbal authority to reverse, placing qualified employee at lead end of movement to observe and communicate with Engineer. Employee proceeding movement on ground. Dispatcher properly canceling Form d line 2 if necessary to reverse movement back with current of traffic.	
403	Operating in both directions in DCS territory.	Observe Dispatcher issuing proper Form D authority. Observe cancellation of Authority when employees report clear.	
405	Reporting clear to Dispatcher/Operator in DCS territory.	Observe employees reporting entering and clearing Non-Signaled DCS territory.	
406a	Non-signaled DCS Substitution.	Observe Dispatcher placing proper signals to Stop position and applying proper blocking devices to switches and signals leading to affected territory. Observe Dispatcher issuing proper Form D authority line 6, or confirming with train possession of Bulletin Order that contains Line 6 information.	

406c	Highway Crossing in Non-signaled DCS. **Test=Radar test may be performed to monitor speed over public crossings at grade.**	Observe movements over public crossings at grade. Observe movements approaching non-interlocked facing point switches for compliance with SPI-401-S1.	
406d	Interlocking removed from service.	Observe C&S personnel spiking, and wedging of switches in Interlocking before removing from service. Observe Dispatcher placing of proper blocking devices on affected switches and signals and issuing of Form d line 7 removing interlocking/Cp from service.	
500	Occupying ABS Territory	Observe employees requesting permission to enter ABS. Observe the proper requirements when permission is granted to open hand operated switch, bolt lock switch and electric lock switches.	
500b	Relief from 5 minute waiting period	Observe employee request for relief from 5 minute wait, Dispatchers compliance with applying blocking devices to last interlocking or CP leading into such block. Observe crew reporting switch has been lined for main track and Dispatchers removal of blocking devices.	
500c	Speed entering ABS between signals.	Observe train entering ABS between signals. **Test=Radar test or barricade testing may be performed for compliance with Restricted Speed.**	

501	Making a reverse move within the limits of a block. **Test=Radar to determine compliance with Restricted Speed.**	Observe employees for compliance. Dispatcher's authority, with crewmember on leading end at Restricted Speed. Flag train back at Restricted Speed.	
502a	Making a reverse move beyond limits of same block where Rule 251 is in effect. **Test=Radar to determine compliance with Restricted Speed.**	Observe proper blocking devices applied and form d issued by Dispatcher for reverse movement into 251 territory. Observe compliance with Restricted Speed.	
502b	Reverse movement beyond limits of block where Rule 261 is in effect. **Test=Radar to determine compliance with Restricted Speed.**	Observe Dispatcher positioning signals to Stop, approved blocking devices applied and issuing verbal authority. Observe crew compliance with Restricted Speed.	
504	Delay in Block. **Test=Barricade and/or Stop Signal test with Dispatcher or C&S cooperation to determine operational requirements, and Radar to determine speed compliance.**	Observe compliance with all requirements for delay in block.	
505	Clear ABS at hand operated switch or crossover.	Observe compliance with reporting clear and restoration of switches.	
550	Train equipped without cab signal apparatus.	Ensure compliance.	
551	Cab signal testing.	Observe compliance with the proper testing of Cab Signals within specified time limits. Observe compliance with Cab Signal, speed control or ATS failure in turn around service and proper notifications.	

552	Cabs signals conformity.	Observe compliance with proper cab signal operation. Engineer notification to Dispatcher if there is a non-conformity, Engineer operating according to the more restrictive indication.	
553	Cab signal changes between fixed signals.	Observe Engineer reaction to the various cab signal changes between fixed signals and compliance with proper speed.	
554	Failure enroute of cab Signal, Speed Control or ATS.	Observe Engineer notification of Dispatcher. Observe the Engineer reduction of speed to 40 MPH and compliance with obtaining proper authority to pass Stop and Proceed and Restricting Signals. Observe Dispatcher notifications and monitoring of trains with these failures.	
555	Criteria for determining a Cab Signal failure.	Observe the employees proper determination for the declaration of Cab signal failure.	
556	Dispatcher's authorizations for move with Cab Signal Apparatus failure.	Observe employee giving proper authority and ensuring that trains do not enter occupied blocks unless in the case of an emergency. Observe proper compliance of Engineer.	
557	Dispatcher's Responsibility for recording Movements.	Observe proper notation on Record of Train Movements, those trains that have: Inoperative cab signals, Unequipped with cab signals, Inoperative speed control and inoperative automatic train stop.	

561	Cab Signal portion of wayside equipment not operative.	Observe Dispatcher notifying trains of cab signal problem, giving authority either by Form D line 11, or verbally that wayside cab signals are out of service between designated locations. Observe Engineer complying with cutting out of Speed Control and operating according to Rule 556 within designated limits.	
562a	Movements in territory where cab signals are used without fixed automatic block signals.	Observe conformity with cab and interlocking signals, and the compliance of engineer to be governed by the most restrictive signal when they do not conform.	
562b	Reverse movements. **Test=Radar may be perform to ensure compliance with Restricted Speed.**	Observe issuance of proper authority from dispatcher before a reverse move may be made. Observe compliance with operating at Restricted Speed.	
562c	Failure of Cab Signals.	Observe notifications and immediate reduction to Restricted Speed. Observe compliance with display of Clear to Next Interlocking Signal, or compliance with the issuance From D, line 13, granting 563 authority. Observe proper notations and notifications of Dispatchers, the proper clearing of clear to next interlocking signal or Form D authority.	

562d	Failure of speed control and/or ATS with cab signals still operative.	Observe Engineer notifications and immediate reduction to not exceeding 40 MPH. Observe compliance with display of Clear to Next Interlocking Signal, or compliance with the issuance From D, line 13, granting 563 authority. Observe proper notations and notifications of Dispatchers, the proper clearing of clear to next interlocking signal or Form D authority.	
562e	Engineer Not on Leading End.	Observe employee compliance with Restricted Speed unless given clear to next interlocking signal or Form d authority to operate per Rule 563. Observe notations and notifications of Dispatchers.	
563	Form D authorization for movement in 562 territory.	Observe Dispatcher for proper issuance of Form d, line 13, granting permission for trains to operate according to this rule. Observe Engineers compliance with approaching home signals prepared to stop, not exceeding 70 MPH, not passing over non-interlocked facing point switches unless known they are properly line, and determining that warning devices have been operating for at least 20 seconds, or gate, if equipped are fully horizontal before passing over highway crossings at grade.	
600	Interlocking/CP Signals govern route to Int/CP. Must be cleared sufficiently in advance of approaching trains to avoid delay.	Observe proper signals displayed in a timely manner to avoid any unnecessary delay.	

601	When Interlocking signals, or control point signals are undergoing repair, such signals shall be placed in Stop position and Blocking Devices applied to said signals. Such Blocking Devices shall not be removed until repairs are completed and proper alignment of Interlocking appliances have been affected.	Observe that proper signals have been placed in Stop position and blocking devices are applied. Observe that Blocking Devices have not been removed until work has been completed. *Under Special Instruction: Assure proper job briefing is conducted before local control of Interlocking is transferred to Engineering employee.*	
602	Once an Interlocking or Control point signal has been cleared for an approaching train, the signal must not be changed to stop position until the train has stopped or the engineer has been informed of situation and advised Dispatcher/operator that they can stop before reaching the signal. Before changing the route Dispatcher/operator must determine that the train has stopped, and must attempt to contact Engineer to inform him of route change. Except in an emergency, where a signal may be put to Stop position immediately.	Monitor radio communications to ascertain proper procedures were followed.	
603	Control mechanisms that operate an interlocking appliance must not be operated when any portion of a train is standing on or closely approaching interlocking.	Observe that person in charge of interlocking is in compliance	

604	If impossible to lock an interlocking appliance, two actions must be taken. 1. All control mechanisms must be properly lined and blocking devices applied. 2. All affected appliances must be properly lined and spiked and wedged. Dispatcher/Operator must not give a train permission to pass a Stop Signal until the two above requirements are met.	Observe Dispatcher/Operator and Signal Maintainer to ensure proper compliance.	
705	Radio Transmission and Reception Procedures.	Observe compliance with proper radio use.	
706	Radio Location and Monitoring.	Observe employees for proper monitoring of radio.	
708	Radio messages: content and code words.	Observe the proper use of all identifying factors and use of key words in transmissions. **Test=May perform a test by calling a particular employee and check for compliance.**	
709	Prohibited Transmissions	Observe proper communications.	
711	Radio communication instead of hand signals.	Observe proper communications between employees when the radio is used in connection with pushing, backing or shoving moves. Observe compliance with stopping in half the specified distance if no other instructions are received, and if and in any changes are made with, or any misunderstanding of communications, train must remained stopped until all crew members are notified and a clear understanding exists between al.	
714	Telephone use	Observe, monitor, employee use of telephones.	

800	Foreman, Track Car Drivers Responsibilities/Qualifications.	Ensure proper qualifications.	
801	Inspection of Track Cars	Observe the proper inspection of track car.	
803	Placing or operating Track cars on tracks.	Observe proper issuance and reception of Form D authority to occupy tracks where ABS and DCS rules are in effect. Observe Dispatcher protection of track cars with proper blocking device application. This application would be for either movement per Form D or shifting move one track car length beyond interlocking.	
804	Additions to Form D line 2	Observe proper compliance with requirements	
805	Track Car following other movements.	Observe Foreman/Track Car Driver operating track car for proper spacing and speed.	
807	Interlockings and control Points. **Test=May perform Stop Signal test through Dispatchers office. Permission to pass signal in Stop position per Rule 241.**	Observe employee operating track car. Observe compliance with Restricted Speed and reporting clear of Interlocking Limits.	
808	Clearing a track specified on From D.	Observe employee properly clearing its authority.	
809	Specified Direction and Limits.	Observe employee for compliance of all requirements.	
811	Highway Crossings.	Observe track car yielding the right of way to road traffic.	
813	Movement of Multiple Track cars.	Observe employees for proper spacing of equipment and regulation of speed.	
814	Displaying of lights.	Observe compliance.	
815	Maximum Speed.	Observe employees operating track equipment for speed compliance.	
816	Unattended track Equipment.	Observe unattended track equipment has been properly secured.	
902	Dispatcher Responsibilities.	Observe employee for compliance.	

903	Transfer Record	Observe employees and their records for proper transfer of information.	
904	Verification of Instructions.	Observe verification of information between Dispatcher and Operator at Transfer time.	
905	Blocking Devices.	Observe employees for application and removal of blocking devices for proper signal and switches. Also observe recording of these blocking device application/removal where necessary.	
920	Operators Instructions	Observe the compliance with instructions received from Dispatcher or Supervisor.	
922	Responsibilities.	Observe employee compliance with requirements.	
923	Reporting weather and unusual conditions.	Observe the recording of weather on Record of Train Movement form and the report to Dispatcher of any unusual occurrences.	
925	Blocking Devices.	Observe compliance with proper blocking of signals and switches under the instructions of the Dispatcher.	
926	Presence on Duty.	Observe that employee remains at station and does not leave or fail to report at designated time.	
927	Transfer Record	Observe the proper transfer of information between Operators.	
928	Verification of instructions.	Observe Operator verifying instructions from Dispatcher at Transfer time.	
940	Conductors/Trainmen	Observe employees obeying instructions as received by Supervisors or Train Dispatchers.	

941	Conductors Authority and responsibilities.	Observe employees are compliant with their responsibilities in the prompt movement of their train, safety and care of their train and passengers, the vigilance, conduct proper performance of their duties and the observance of all applicable rules.	
950	Engineer instructions	Observe compliance with instructions from Supervisors and Train dispatchers.	
951	Executing instructions.	Observe proper compliance with the execution of received instructions.	
952	Checking Forms.	Observe compliance.	
953	Inspection of out of date engines.	Observe compliance.	
954	Mechanical forces inspections.	Comply with inspections done by mechanical forces and perform proper brake test.	
955	End of trip report.	Observe for compliance.	
956	Observing signals. **Test=Coordination between Dispatcher and signal personnel for proper compliance with signal indications, including Stop Signal tests, barricade test and Radar tests to ensure speed compliance.**	Observe employee for compliance with signal indications and regulation of speed.	
961	Engineer Certificate.	Observe that employee has up to date certificate and is tested on a timely basis for recertification.	

APPENDIX B

The following table lists many of the MBCR Employee Timetable Special Instructions that supervisors may choose from when conducting their tests and/or observations.

SPECIAL INSTRUCTION NUMBER	SPECIAL INSTRUCTION	HOW COMPLIANCE IS ACHIEVED	ALL SUPERVISORS
A-S1	Train Schedules.	Ensure employees have in their possession current public schedules for the lines they are qualified to operate over.	
A-S2	Safety Instructions.	Train, engine and other transportation employees (except station employees) are required to know the safety instruction of the day, including its meaning, intent and application. **Test: Verbal examination** and visual observation.	
A-S3	Air Brake Instructions.	Ensure proper Air Brake books are in the possession of all train and engine service employees and that foreign railroad employees are governed by their home air brake instructions except as modified by MBCR 3.	
A-S4	Books in Effect.	Ensure all applicable employees have the current required books.	
C-S1	Notice of NORAC Class Attendance.	Employees must attend operating Rules class as directed by Crew Management. Time spent in such class must be considered as time on duty under Federal Hours of Service Act.	
C-S2	Engineers.	Ensure Engineers who fail Norac exam do not operate an engine until they pass examination.	
C-S3	Engineer Recertification.	Engineer Recertification class must be attended as directed by crew management. Time spent in such class must be considered as time on duty under Federal hours of Service Act.	
C-S4	Operating Rules Qualification.	Ensure Train Dispatchers, Assistant Chief Train Dispatchers, Block operators, Train and Engine service employees, employees who assist in the movement of	

		engines, employees who request foul time or take track out of service for maintenance, employees who operate track cars, C&S employees and Supervisors and Managers who supervise any of the listed employees be updated to any changes in Rules and Instructions after 6 months absence, and attend a rules class after 12 months absence.	
C-S5	Physical Characteristics Qualifications.	Qualify conductors and Engineers on physical characteristics of territory over which they operate. Said employees must, to remain qualified, while continuously employed in railroad service, have operated at least once trip in train or engine service during the previous 12 months. Any train or engine service employee who exceeds their time limit as set forth in this Special Instruction, must be re-examined by the proper division officer before performing service over the territory involved. Engineering employees once initial qualified on physical characteristics will retain their qualifications as long as they have performed service in that territory during the previous 12 months.	
G-S1	Alcohol and Drug Testing.	Ensure any employee on duty, or reporting for duty, who are tested by breath or urine sample are in compliance with Rule G. If employee refuses to take test, in compliance with 49 CFR part 219 subpart C, such employee shall be removed from service and not allowed to work in Hours of Service covered position for at least 9 months. Further testing by blood sample, as required for Federal post accident tests, must be negative for substances identified in this Special Instruction, or be in violation of Rule G.	
L-S1	Authority to Board and Ride Trains.	Observe the proper authority and personnel in operating cab of train.	

M-S1	Sunglasses.	Observe that sunglasses are not worn in low light conditions/or at night.	
N-S1	Complying with Rules, Orders, and Instructions.	Ensure that employees follow rules and procedures of foreign railroad over which they operate.	
1-S1	Bulletin Orders/Division Notices.	Observe that employees governed by Bulletin Orders, Division notices and TSRB's have the proper most recent, up-to-date of these directives. Also, may **test** on information included within. And observe proper addition/deletion of information to TRSB given enroute.	
1-S2	Temporary Speed Restriction Bulletin. (TSRB)	Observe communication with dispatcher for any changes to TSRB and retention of 7 days after any additions or deletions have been made enroute.	
1-S3	MBCR Customer Service Notices.	**Test** train crew on information contained within latest Customer Service Notice.	
1-S4	MBCR General Road Foreman's Notices.	Observe Engineer has proper General Road Foreman's Notice, **Test** by verbal exam on information contained within.	
4-S1	Job Briefing.	Observe proper job briefing. Ensure that all safety points and restrictions are discussed. For passenger service the proper points are covered as well as covering those yard service points for those working in the yard. Observe any crewmember joining enroute reports to conductor for briefing.	
16-S1	Blue Signal Protection.	Observe that train and engine crews do not operate mechanical, pneumatic or electrical apparatus on equipment with blue flag protection established unless specifically authorized to remove protection from person identified as in charge of the workmen.	
16-Y1	Tower H Application of Blue Flags or Power Derails.	Observe Tower H Operator does not apply or remove any power derails or blue flag indicators unless specifically requested to do so by designated mechanical employee. Observe recording by Operator	

		of application/removal on proper form.	
16-Y1	Tower H Application of Blue Flags or Power Derails.	Tower H Operator must not authorize hand operation of power derails without permission of Mechanical Foreman in Charge.	
19-S1	Whistle or Horn Failure.	Observe crewmember sounding proper horn signal from first forward facing horn available or Engineer ringing bell continuously, approaching crossings prepared to stop, reducing speed where necessary, not exceeding 30 mph in areas where workers are known to be working. Report failure to Dispatcher.	
19-S2	Engine Whistle or Horn Sounds.	Observe 19d when passing stand train or on-track mw equipment on adjacent track.	
19-S3	Portable Whistle Signs.	Observe Engineers sounding 19d when they see portable whistle signs displayed on any track and sound 19d again upon sighting Roadway Workers on or near tracks.	
19-S4	Engine Whistle or Horn Signal.	Observe compliance with 15-20 seconds of sounding 19b, when applicable. Sounding for protection of Roadway Workers and when approaching standing trains on main track.	
19-Y1	Engine Whistle or Horn Signals.	Observe/**Test** in Tower A limits, BET and North Station, compliance of 19c when approaching Roadway Workers or standing train or on-track MW equipment.	
20-S2	Engine Bell at Stations.	Observe engineer sounding engine bell approaching all station platforms.	
20-Y1	Engine Bell BET/Yard 14.	Observe the continual sound of bell when equipment is moved within BET/Yard 14.	
20-D1	Southampton Street MBTA S&I Building.	Observe sounding of engine bell while approaching and passing over the crossings at the east and west ends of the S&I Building. Also bell must be rung between	

		derail and high level platform inside the S&I Building.	
34-E1	Ipswich Station: Train Start Button.	Eastward trains must key in code *123 when ready to proceed in order to activate Topsfield Road.	
34-M1	Montello: Spotting Train.	Observe compliance of proper spotting of southward trains at Montello.	
35-Y1	North Station Freight Trains.	Observe compliance on the prohibition of freight trains adjacent to station platforms.	
35-M1	Freight Car Limit.	Freights consisting > 50 cars are restricted to 15 mph between Pearl and Pilgrim.	
36-S1	Train Partings.	Observe compliance on the seven interrogatories.	
36-S2	Restricted Speed Operational **Test.**	To assure trains operating at Restricted Speed are able to stop short of an obstruction, MBCR Supervisors will place a Temporary Track Barricade Sign in the gauge of a track where Restricted Speed is required. Observe compliance.	
36-S3	RWP Flags/Tags.	RWP Flags will be erected at derails applied to prevent entrance to track segments fouled by Roadway Workers. RWP Tags are fastened to locks and securing devices applied to switches or derails positioned to prevent entrance to fouled tracks. RWP Tags are also attached to controls of unattended engines left within working limits. These engines must not be moved unless tags have been removed. These Flags and Tags must only be removed by Roadway Worker in Charge or Roadway designated by Worker in Charge. Observe compliance.	
36-Y1	North Station.	Observe compliance of engines being properly spotted on tracks 2-10.	

37-S1	Engine Servicing/Car Shop Repair Tracks.	Restricted Speed not exceeding 5 mph. **Test: Barricade/Restricted Speed Test Radar**	
37-S2	Turnouts and Crossovers.	Diverging/Non-Diverging moves through hand operated. **Test: Radar**	
37-S3	Speed Table.	Engineers of trains traveling over 20 mph must verify accuracy of speedometer. Report any anomaly to Dispatcher.	
37-S4	Special Maximum Speeds.	**Test: Radar compliance of all listed equipment.**	
37-S5	Engines/Cars Maximum Speed.	**Test: Radar of listed equipment for compliance.**	
37-S6	Speedometer Checking Measured Mile.	**On DB,MM,PB and Northside all lines only:** Engineer will check speedometer against lapse time while train is in constant speed between 2 mile posts. Report inaccuracies on MAP 100.	
37-S7	Work Trains.	Unless otherwise restricted will operate at Freight Train speeds. **Test: Radar**	
37-S9	Overinflated /Underinflated Air Bags.	Observe compliance of speed due to condition as defined. **Test: Radar**	
37-S10	Maximum Authorized Speed Other Tracks.	Pawtucket Layover, all tracks Restricted Speed not exceeding 10 MPH. **Test: Restricted Speed Operational Test/Radar**	
37-E1,G1,F1,H1,C1 W1,D1,M1,P1, Q1,K1,N1,T1	Passenger/Freight Trains Maximum Speed/Speed Restrictions Unless otherwise restricted.	Observe/Test on compliance on all speeds listed for each territory. **Test: Radar**	
37-Y1,E3,F2,D3,M3, Q2,	Maximum Speeds Other Tracks.	Test compliance on these tracks. **Test: Restricted Speed Operational Test/Radar**	

40-Y1	Callahan Track Locomotive Restriction.	Observe proper placement of engine on track. Not to pass yellow line inside BET.	
40-D1	Engine and Special Load Restrictions.	20 mph over Neponset River Bridge. **Test: Radar**	
41-Y1	North Station Locomotive Restriction.	Observe locomotives are kept out of train shed, except under an emergency and then with Terminal Dispatchers' or Trainmasters' permission.	
41-E1,F1,H1,W1,	Freight Car Restrictions.	Observe Plate "E" Cars are restricted from locations listed.	
43-S1,Y1,D1,	Close Clearance.	Observe compliance.	
43-S2	Switch Markers.	Observe compliance.	
47-S1	Electrical Operation.	Observe crew in possession of proper book. Current AMT-2. **Test: Verbal Quiz**	
72-S1	Use of Templestick.	Observe crew in possession of proper equipment.	
72-S3	Overheated Bearings-Engines.	Observe compliance. **Test: Radar**	
80-S1	Movable Point Frogs.	Observe compliance. **Test: Barricade/Radar**	
97-W1	Running Track.	Observe compliance. **Test: Barricade/Stop Signal/Radar**	
98-Y1	BET/Yard 14.	Observe compliance.	
98-Y2	Movement within BET/Yard 14.	Observe compliance.	

98-Y3	Equipment Wash procedures.	Observe compliance.	
98-Y4	CRMF.	Observe compliance.	
104-S1	Electrical Lock Switches North Side.	Observe compliance with regards to obtaining permission and proper operation of switch.	
104-S2	Switch Keepers.	Observe compliance.	
104-Y1	Snap Switches BET/Yard 14.	Observe compliance.	
104-Y2,E2,F2,H1,W2, 1P1,K1,N1,T1	Electrically Locked Switches.	Observe compliance.	
104-Y3,E2,G1,W1,	Normal position of switches.	Observe compliance.	
104-D1	Double Slip Switches with movable point frogs.	Observe compliance.	
116-S1	Trains operated from other than leading end.	Observe compliance. **Where Restricted Speed is to be observed, may do test with Barricade.**	
116-E1	Operating train from other than leading end.	Observe compliance when changing ends.	
121-S1	Protection of passengers.	Observe compliance.	
122-S1	Extra stops for Employees.	Observe compliance.	
132-S1	Maintenance work without Form D.	Observe compliance.	

132-S2	Bridge Strikes.	Observe compliance. **Test: Radar/Simulation**	
133-S1	Protection of Out of Service Track.	Observe compliance through field observation and/or radio/telephone monitoring.	
133-S2	Admitting Additional Equipment.	Observe compliance through field observation and/or radio/telephone monitoring.	
133-S3	Foreman going off duty.	Observe compliance through field observation and/or radio/telephone monitoring.	
133-S4	Work or Wreck Trains.	Observe compliance through field observation and/or radio/telephone monitoring.	
133-S5	Highway Crossings on Out of Service Track.	Observe compliance.	
133-S6	Use of Jumpers on Out of Service Track.	Observe compliance through field observation and/or radio/telephone monitoring.	
138-S1	Highway Crossing Warning Malfunction.	Observe compliance through field observation and/or radio/telephone monitoring.	
138-S2	Massachusetts.	Observe compliance.	
138-S5	Stopping clear of Crossing Circuits.	Observe compliance.	
138-S6	Malfunction of Highway Crossing Warning Devices.	Observe compliance.	
138-S7	Private Crossings at Grade.	Observe compliance.	
138-Y1,E1,F1,G1,H1,C1,W1,D1,M1,P1,Q1,K1,N1,T1	Grade Crossings with Automatic Protection and/or Special Requirements.	Observe compliance to all crossings including any Notes requiring additional actions.	

138-D2	Grade Crossings: Southampton Street.	Observe compliance.	
140-S1	Foul Time.	Observe compliance.	
140-S2	Protection of Foul Time >30 Minutes.	Observe compliance through field observation and/or radio/telephone monitoring.	
161-S1	Approved Abbreviations.	Observe compliance.	
165-S1	Form D Inquiry/Delivery.	Observe compliance.	
165-S2	Blanket Addressed Form D's.	Observe compliance.	
165-S3	Dictating /Repeating Form D's in Non-Signaled DCS Territory.	Observe compliance.	
175-S1	Temporary Speed Restrictions.	Observe compliance.	
177-S1	Changing or Cancelling Temporary Speed Restrictions.	Observe compliance.	
240-E1,G1,F1,H1,C1,W1,D1,M1,P1,Q1,K1,N1,T1	Signal Rules and Current of Traffic.	Observe compliance. **Test: Stop Signal Compliance**	
241-S1	Passing a Stop Signal.	Observe compliance. **Test: Radar/Barricade**	
241-S3	Unattended Movable Bridges.	Observe compliance.	
241-S4	Movable Bridges.	Observe compliance.	

241-E1	Stop Signals.	Observe compliance.	
241-E2,G1	Exceptions to Verbal Permission Requirements.	Observe compliance.	
241-W1,M1,K1	Stop Signals.	Observe compliance of proper authority. **Test: Radar/Stop Signal Compliance/Barricade Restricted Speed**	
251-S1	Pilot Service North Side Only.	Observe compliance through field observation and/or radio/telephone monitoring.	
277-S1	Non-Conforming Aspects Approach Pilot Service Sign Northside Only.	Observe compliance.	
277-F1	Non-Conforming Aspects Medium Approach Slow.	Observe compliance. **Test: Radar**	
277-M1	Freight Train Signal Indication.	Observe compliance. **Test: Radar**	
281a-S1	Cab Speed Signal Indication.	Observe compliance. **Test: Radar**	
287-S1	Slow Clear Indication.	Observe compliance. **Test: Radar**	
290-S1	Restricting Signal.	Observe compliance. **Test: Radar/Barricade**	
291-S1	Stop and Proceed.	Observe compliance. **Test: Radar/Stop Signal**	
296c-S1	Display Resume Speed Signs.	Observe Compliance.	
400-S1	Movements in DCS Territory.	Observe compliance.	

401-S1	Non-Interlocked Facing Point Switches.	Observe compliance. **Test: Barricade**	
401-S2	Movement Against Current of Traffic. North Side	Observe compliance. **Test: Radar**	
500-S1	Speed Entering ABS between Signals.	Observe compliance. **Test: Radar**	
500-M1	Occupying or fouling a Block.	Observe compliance.	
504-S1	Passenger Train Station Stops.	Observe compliance. **Test: Delay in Block**	
504-G1	Delay in Block.	Observe compliance.	
507-S1	Rusty Rail.	Observe compliance.	
551-S1	Cab Signal System. South Side Only.	Observe compliance.	
562-M1	Reverse Movement.	Observe compliance.	
601-S1	Local Control of Interlocking by C&S Employees.	Observe compliance through field observation and/or radio/telephone monitoring.	
700-S1	Use and Care of Radio.	Observe compliance.	
701-S1	Communication Requirements for Trains.	Observe compliance.	
702-S1	Locomotive Radio Main Switch.	Observe compliance.	

706-S1	Road Radios Other than Interlocking Stations.	Observe compliance.	
706-S2	Bombardier 1600 Series Control Cars.	Observe compliance.	
706-S3	Changing Frequencies. North Side Only.	Observe compliance.	
706-D1	Radio Channels.	Observe compliance.	
813-S1	Movement of Multiple Track Cars.	Observe compliance.	
815-S1	Rail Grinding Unit.	Observe compliance. **Test: Radar**	
902-S1	Form D's CPF-BY,CPW-WJ,CPF-WL North Side Only.	Observe compliance.	
905-S1	Blocking Devices.	Observe compliance through field observation and/or radio/telephone monitoring.	
934-S1	Passenger Train Crews.	Observe compliance.	
934-S2	Wheel Slide Detectors.	Observe compliance.	
934-S3	Brake Tests North/South Stations.	Observe compliance.	
940-S1	Passenger Conductor /Assistant Conductors.	Observe compliance.	
940-S2	Conductors North/South Stations.	Observe compliance.	

940-S3	Work or Wreck Train Conductors.	Observe compliance.	
940-S4	Conductors Assistant Conductors.	Observe compliance.	
940-S5	Medical Emergencies.	Observe compliance.	
940-S6	Suspicious Activity.	Observe compliance.	
940-Y1	Conductors North Station.	Observe compliance. **Test: Verbal Exam on Directives Affecting Train Movement.**	
941-S1	Conductor Responsibility for Temporary Restrictions.	Observe compliance.	
950-S1	Engineer's Compartment South Station.	Observe compliance.	
950-S2	Engineers rain Handling Certification Form.	**Test on all applicable qualifications.** Observe up to date Certificate.	
950-S3	Station Stops High Level Platforms.	Observe compliance.	
950-Y1	Engineers North Station.	Observe compliance.	
952-S1	Inspection Forms.	Observe compliance.	
954-S1	Air Brake Test.	Observe compliance.	

Employee Test Detail Report

Test Dates From 01/01/2009 to 02/28/2009

MBCR

Name	Test Date Test Time	Test Type	Test Performed Supervisor	Location Result	Examiner Action	Method Renewal Date
Examiner:						
Supervisor:						
	02/24/2009 09:10 AM	NORAC	124-Maximum Authorized	Ward Hill Passed		M Radar
Comments: 50 mph						
	02/24/2009 09:10 AM	NORAC	19b-Approaching Public	Ward Hill Passed		M Observation
Comments: whistled for crossing						
	02/25/2009 05:15 AM	NORAC	T-Reporting for Duty; On	Passed		M Observation
Comments: reported for duty on time e. fitchburg yard						
	02/25/2009 05:30 AM	Special	A-S2-Safety Instructions	Passed		M Observation
Comments:						
	02/24/2009 09:13 AM	NORAC	124-Maximum Authorized	Ward Hill Passed		M Radar
Comments: 48 mph						
	02/24/2009 09:13 AM	NORAC	19b-Approaching Public	Ward Hill Passed		M Observation
Comments:						
Subtotal Tests 51						
Total Tests 51						

Selection Criteria: Department = Customer Service, Examiner = 1053

Printed on 03/09/2009