RULE BOOK APPENDIX
ISSUE 11/07

I, the undersigned, acknowledge receipt of this publication. I undertake to familiarise myself with any alterations which apply to me.

FULL NAME (CAPITALS) _____

STAFF NUMBER _____

GRADE _____

LOCATION _____

SIGNATURE _____

DATE RECEIVED _____

Please hand this form to your Manager/ Supervisor on completion

RULE BOOK APPENDIX

- this Appendix applies from 24th November 2007
- it applies to everyone issued with a copy of the full Rule Book
- it replaces the Rule Book Appendix issued on 27th September 2004
- it must be inserted in your Rule Book binder after Section U (or Section Z if you are issued with this) and the existing pages must be discarded
- the introduction of AWS in connection with temporary and emergency speed restrictions remains postponed and references in this Appendix to such arrangements should be disregarded for the time being

NOTE : the Glossary to the Rule Book also applies to this Appendix

INDICATION OF CHANGES

- each new item is indicated by a vertical black line in the margin
- a short vertical black line against a blank space indicates that an item has been deleted

EXCEPTION: **Appendix 11 is renumbered throughout; margin bars are used to denote new items other than altered clause numbers**

EXPLANATION OF PRINCIPAL CHANGES

APPENDIX 1: CLAUSE 1.3.4

- the Driver must arrange for the Signalman to be informed if exceptional or unexpected wheel/rail adhesion problems occur

APPENDIX 2: CLAUSES 2.2.1 AND 2.2.5

- the instructions previously shown in clause 2.2.1 concerning the PCA have been transferred to Rule Book, Section H
- the instructions concerning train delays are now shown in clause 2.2.1
- the instructions concerning defective PA systems have been amended and are shown in clause 2.2.5

APPENDIX 3: CLAUSE 3.3

- this new clause includes instructions concerning Train Protection and Warning System (TPWS)

APPENDIX 6: MANUAL OPERATION OF POWER OPERATED POINTS

- this Appendix is deleted
- instructions concerning the manual operation of power operated points are shown in Rule Book, Section B

APPENDIX 8: ENGINEERING

- this Appendix is deleted
- instructions concerning Engineering are now shown in Rule Book, Section Q

APPENDIX 11: LOCAL INSTRUCTIONS

- the order of lines on which these local instructions apply has been re-arranged to correspond with the order of lines in the Weekly Operating Notice
- the instructions applicable to Signalmen are now published locally in the signal box(es) concerned

INDEX

RULE BOOK APPENDIX

1.0 OPERATION OF TRAINS

1.1 General Instructions

1.2 Instructions to Guards

1.3 Instructions to Drivers

2.0 ACCIDENTS, INCIDENTS AND DEFECTS

2.1 General Instructions

2.2 Instructions to Guards

2.3 Instructions to Drivers

2.0 ACCIDENTS, INCIDENTS AND DEFECTS

3.0 TRAIN CONTROL SYSTEMS

3.0 TRAIN CONTROL SYSTEMS

4.0 WORKING OF THE AUTOMATIC BRAKE

5.0 COUPLERS AND COUPLINGS

5.1 General Instructions to Shunters

5.2 Instructions to Shunters - Buck-eye Automatic Couplers

5.3 Instructions to Shunters - Tightlock Automatic Couplers

5.4 Instructions to Shunters - Dellner Automatic Couplers

5.5 Instructions to Shunters - Conventional Couplings

6.0 NOT USED

7.0 LEVEL CROSSINGS

7.0 LEVEL CROSSINGS

8.0 NOT USED

9.0 OPERATIONS CONTROL

9.1 Instructions to Operations Control - Emergencies

9.2 Instructions to Operations Control - Defects and Irregularities

9.3 Instructions to Operations Control - Bad Weather

9.4 Instructions to Operations Control - Level Crossings

10.0 TRACTION AND ROLLING STOCK

10.1 Locomotives

10.1.1 111 Class
10.1.2 201 Class

10.2 Diesel Multiple Units

10.2.1 80 Class
10.2.2 450 Class
10.2.3 3000 Class

10.3 Locomotive hauled coaching stock

10.3.1 Enterprise stock
10.3.2 Mark 2F stock
10.3.3 Generator Vans

10.4 Instructions concerning Traction and Rolling Stock

10.4.1 Train assistance procedures for traincrew
10.4.2 Train driving best practice and defensive driving policy
10.4.3 RPSI trains (Operating Instruction for RPSI trains)
10.4.4 Conductor/Driver communication system on Cross Border services
10.4.5 Standards of service handbook (Enterprise)

11.0 LOCAL INSTRUCTIONS

12.0 LINE DIAGRAMS

APPENDIX 1

OPERATION OF TRAINS

1.0 GENERAL INSTRUCTIONS

1.1.1 Use of the automatic brake during train movements

- the automatic brake must be in use throughout the train during all train movements
- vehicles with isolated brakes may be conveyed on an air-braked train but not as the first or last vehicle and only in accordance with the instructions in Appendix 2 concerning defective or isolated brakes
- exceptionally, where special authority is given, a train movement may be made without the automatic brake in use, but only in accordance with the special instructions issued for the movement
- the NIR 3-pipe air brake system is not compatible with the UIC 2-pipe air brake system
- the vacuum brake system is not compatible with any air brake system

NOTE: a vacuum-braked train may be worked by a dual-braked locomotive

- details of the braking system fitted to locomotives, multiple units and passenger coaching stock are shown in Appendix 10
- in certain circumstances, authority is given in the TRAIN ASSISTANCE PROCEDURES FOR TRAIN CREW booklet for an assisted train movement to be made without the automatic brake being in use throughout the train

1.1.2 Continuity of the automatic brake

- the Driver and Guard are responsible for carrying out the BRAKE CONTINUITY TEST

1.0 GENERAL INSTRUCTIONS

- this test is to prove the continuity of the automatic brake throughout the train

- it is VITAL to safety

- it must be carried out in the following circumstances:

  - before any train enters service (except when a multiple unit train enters service without alteration to its formation since its previous working on the same day), or

  - whenever any alteration is made to the formation of the train, or

  - if, for any reason, the brake connections have been uncoupled and recoupled or brake cocks closed and reopened (whether or not the vehicles have been uncoupled)

- it must be carried out as shown in Appendix 4, according to the type of braking system in use

- it must be carried out by the Driver from the leading cab (of the leading traction unit) and by the Guard at the rear of the train

- if it is not completed satisfactorily, it must be repeated as necessary and any adjustments made to the brake connections, etc, until a correct result is obtained

- if necessary, the assistance of the Maintenance staff must be obtained

- before an assisted train movement starts, the instructions concerning the brake continuity test, as shown in the TRAIN ASSISTANCE PROCEDURES FOR TRAIN CREW booklet, must be observed

1.0 GENERAL INSTRUCTIONS

1.1.3 Testing of the automatic brake during the journey

- the Driver must make a RUNNING BRAKE TEST at the first suitable opportunity after starting the journey
- this test must be repeated well before approaching:
  - the first stopping place
  - a crossing loop
  - a steep falling gradient
  - a terminus or dead-end platform line
- this test must also be repeated frequently during frost or falling snow or when lying snow is disturbed by trains
- whenever this test is made, the Driver must check that sufficient retardation is achieved to be sure that the automatic brake is working properly
- on trains with electro-pneumatic (EP) brakes, this test must be made with the automatic air brake, but the EP brake must also be tested if it would not otherwise be used during the journey

1.1.4 Use of the automatic brake during shunting movements

- the automatic brake must be in use during any shunting movement conveying passengers and, as far as practicable, on all other shunting movements
- before any shunting movement starts where this is not possible, a check must be made to ensure that the brakes are released and, where necessary, the brake release cord must be pulled on each vehicle concerned

REMINDER: the automatic brake must not be relied on to secure vehicles

1.0 GENERAL INSTRUCTIONS

1.1.5 Messages from traincrew concerning the working of trains

- messages requiring the stopping or cautioning of trains must, whenever practicable, be given directly to the Signalman

- any available means of communication may be used for this purpose

- other messages concerning the working of trains which require direct communication with the Signalman (for example, passing signals at Danger, arranging assistance or complying with Rule Book, Section K) should be given by signal-telephone unless significant delay can be avoided by using train-radio

- messages requiring the emergency services to attend, except as shown below, should be given directly to the emergency services or to Operations Control - in the former case, Operations Control must then immediately be advised of the circumstances

- messages requiring the stopping or cautioning of trains AND the attendance of emergency services must, whenever practicable, be given directly to the Signalman

- messages requiring the Maintenance staff to attend or arrangements to be made to take a defective train out of service should be given directly to Operations Control

- if, however, the train is unable to proceed normally, the message should instead be given to the Signalman, who must advise Operations Control of the circumstances

1.0 GENERAL INSTRUCTIONS

1.1.6 Bell communications

- the following code must be used:

CODE	MEANING
1	Stop
2	Ready to start
1-2	Close doors
2-2	Enable doors
3	Set back
4	Draw forward slowly
5	Leaving train in accordance with the Rules
6 or more	EMERGENCY STOP
3-3-3	Driver to contact Operations Control to obtain Police assistance for the Guard

NOTE: these signals may also be used during shunting movements

1.1.7 Propelled movements and movements driven from other than the leading cab

- such movements on running lines must be controlled by a Shunter, Person in Charge or other person with the necessary route knowledge

- this person (who must be specially provided, if necessary) must observe the instructions applicable to Guards as shown in Rule Book, Section H, clauses 4.5.9 or 4.5.10, as appropriate

- this limitation on Guards controlling movements does not, however, apply when:

  - setting back after overrunning a platform or taking the wrong route at a junction, or

  - when making a movement in connection with Single Line Working

1.2 INSTRUCTIONS TO GUARDS

1.2.1 Lighting of trains

- you must ensure that the train lighting is ON during the journey, as follows:
  - during darkness or poor visibility
  - when passing through tunnels
- to conserve batteries, the train lighting must be OFF as follows:
  - until about 15 minutes before departure time
  - when not required during the journey
  - when stabled or out of service

1.2 INSTRUCTIONS TO GUARDS

1.2.2 Heating of trains

- you must ensure that the air-conditioning (where provided) is operating correctly or, when required, the train is adequately heated/ventilated for the comfort of passengers
- you must operate and adjust the generator van (where provided) in accordance with the instructions exhibited in the van concerned
- on multiple unit trains and trains hauled by 201 class locomotives (when Head End Power is in use), you must liaise as necessary with the Driver to ensure that the train is properly heated, etc
- you must switch off the air-conditioning/heating when not required

1.2.3 Locking of doors

- you must ensure that the gangway doors at the extreme ends of the train are kept locked/secured
- all other corridor and gangway doors should be kept unlocked, unless defective or involved in an incident, in which case the door must be locked and labelled out of use

1.2.4 Operation of power operated doors

- the Driver is responsible for releasing (enabling) the doors
- you are responsible for closing the doors or for signalling to the Driver when it is safe to close the doors where closing is under the Driver's control
- you may close the doors, or signal to the Driver from any position in the train

1.2 INSTRUCTIONS TO GUARDS

- when station work is complete, you must:
  - close all doors (except the door at your position) by operation of your door key, or
  - give the CLOSE DOORS signal (1 pause 2) to the Driver
- when all other doors are closed, you must:
  - check that the external door obstruction lights are extinguished and the doors are not obstructed
  - make sure that no-one is trapped in the doors
  - close the door at your position
  - give the TRAIN READY TO START signal to the Driver, when safe to do so
  - remove your door key
- you must remain at the door position until the train has passed clear of the platform
- if any door fails to close, the external door obstruction light will remain illuminated, in which case you must:
  - give the ENABLE DOORS signal (2 pause 2) to the Driver
  - remove any obstruction, etc, from the door
  - attempt the closing door procedure again

1.2 INSTRUCTIONS TO GUARDS

1.2.5 Operation of central door locking

- you are responsible for operating this system which is provided on Mark 2F passenger-carrying coaching stock
- when unlocking the doors, you may use any control panel on the platform side of the train
- before unlocking the doors, make sure that the train is stopped and is correctly positioned at the platform
- after unlocking the doors, check that the external door obstruction lights are lit
- you may then switch off the control panel but it must not be left open while unattended
- when locking the doors, you may use any control panel on the platform side of the train provided it is in sight of the Driver
- before locking the doors, you must check that:
  - station work is complete
  - all external doors (except your own) are closed
- you must then:
  - check that the external door obstruction lights are extinguished
  - rejoin the train and close your door
  - switch off the control panel
  - give the TRAIN READY TO START handsignal to the Driver, when safe to do so

1.2 INSTRUCTIONS TO GUARDS

- an emergency access handle is provided on both sides of each vehicle; these can be reset by returning the handle to the normal position

- an emergency egress handle is provided above each passenger door; these can be reset by use of a carriage key

NOTE: operation of this handle causes an emergency brake application

1.2.6 Conveyance of parcels and luggage

- you must not allow on the train any parcels or luggage, etc, other than those which are:

  - accompanied by a passenger, or

  - properly labelled and stamped as being authorised for conveyance by train

- you must ensure that items are put out at the correct station but are not left at a station which is unstaffed

- you must provide a written report if any item is damaged or lost

- motorcycles or other petrol driven vehicles must not be conveyed on the train

1.2.7 Conveyance of mails

- where practicable, you must ensure that mails conveyed by your train are locked from public access

- mails must be handed over at the correct station to a uniformed postal worker or an authorised member of the station staff

1.2 INSTRUCTIONS TO GUARDS

1.2.8 Conveyance of dogs

- you may permit dogs on the train only as follows:
  - **IN THE GUARD'S COMPARTMENT** provided the dog is properly muzzled and attached or it is secured in a suitable container
  - **IN PASSENGER ACCOMMODATION** (excluding Catering Vehicles) provided passengers do not object and it is kept off the seats
- these restrictions do not apply to a guide dog accompanying a registered blind person

1.2.9 Stabling of coaching stock

- when coaching stock is to be stabled or left unattended, you must ensure that it is properly secured by use of the parking brake(s) and all exterior doors are locked and windows are closed
- if a vehicle(s) is to be stabled and a parking brake(s) is not available, you must ensure that it is secured by scotch(es)
- you must carry this out if the Shunter or member of station staff is not present

1.2.10 Operation of Sandite trains

- when working a Sandite train, you must travel in the brakevan of the power car NOT containing the Sandite equipment

NOTE: details of the formation of this train is shown in clause 1.3.8

1.3 INSTRUCTIONS TO DRIVERS

1.3.1 Observance of speed restrictions

- you must ensure that speed does not exceed that of the vehicle with the lowest permitted speed in the train
- you must also observe the general speed restrictions and the restrictions applicable to each portion of the line as set out in the Working Timetable
- the speed of a light locomotive(s) must not exceed that shown in the Working Timetable
- where speed restriction indicators are provided, these comprise an octagonal yellow board showing the restriction in miles per hour
- where two indications are provided on the same post, the lower speed applies to vacuum-braked trains and the higher speed to all other trains

1.3.2 Observance of signals

- countdown markers are provided on the approach to certain signals
- these comprise three signs showing three, two and one diagonal red bars on a white background
- you must control the speed of your train with particular care when approaching the signal concerned at Danger

1.3.3 Signals equipped with Spad Indicators

- a plunger is provided (at the signal) which overrides the STOP indication and associated AWS indication for four minutes

1.3 INSTRUCTIONS TO DRIVERS

- if authority to pass the signal at Danger is given to you directly by the Signalman, you must operate the plunger when ready to proceed

- if this authority is passed to you via a Handsignalman, Pilotman or other person at the signal, this person is required to operate the plunger

- if the signal is intermediate in a Temporary Block Working Section or Engineer's possession, you may disregard the STOP indication

1.3.4 Poor wheel/rail adhesion

- you must take extra care when approaching signals, platforms or other locations where you may be required to stop when/where rail head conditions are poor

- in particular, you should be aware that difficulties in this respect are likely to occur at those locations shown in Appendix 12

- you must arrange for the Signalman to be informed if you encounter exceptional and unexpected difficulties in this respect

1.3.5 Use of train-radio

A - TEST CALLS

- you must make a successful test call from each driving cab when preparing your train

- you must also make a successful test call after changing channels

- you must give the traction unit number and use the train ID shown in the Working Timetable or the Notice when making a test or any other call

1.3 INSTRUCTIONS TO DRIVERS

- if unable to make a successful test call as shown in this clause, you must consider the train-radio to be defective and observe the instructions in Appendix 2

- you must understand that you are not permitted to start or continue any journey where a test call is required unless it is completed successfully or you are observing the instructions which apply when train-radio is defective

B - DURING THE JOURNEY

- the train-radio must be kept switched on with the volume set at a level which will ensure that any incoming calls will be received

- similarly, this applies to any portable radio being used instead of train-radio as shown in Appendix 2

- where a hand held microphone is provided with a detachable lead, this must be kept plugged in throughout the journey

- you must change channels as indicated by the lineside CHANGE CHANNEL signs

- when working over Irish Rail lines, you must observe the relevant instructions in the Irish Rail General Appendix Section F, concerning communications

1.3.6 Operation of power operated doors

- you are responsible for enabling the doors

- before enabling the doors, make sure that the train is stopped and is correctly positioned at the platform

- take care to enable the doors on the correct side of the train

1.3 INSTRUCTIONS TO DRIVERS

- the Guard is responsible for closing the doors or for signalling to you when it is safe to close the doors where closing is under your control

- where closing is under your control, you will receive the CLOSE DOORS signal (1 pause 2) when it is safe to close the doors

- whenever you receive the TRAIN READY TO START signal, you must check that the Door Interlock Light is illuminated

- if you receive the ENABLE DOORS signal (2 pause 2), you must release the doors again and wait for a further signal

- if it is necessary to open (rather than enable) doors for test or emergency purposes, you must press the relevant enable buttons and then press the door TEST button

1.3.7 Entering or leaving token sections

- you must stop your train to receive, exchange or deliver the Token

NOTE: the reference in Rule Book, Section H, clause 3.5 to non-stopping trains exchanging Tokens does not, therefore, apply

1.3.8 Operation of Sandite trains

- this train comprises power car 8097 (Sandite Application Unit) and another power car

- it operates as a normal 80 class train except that:

  - the two power cars must not be coupled/uncoupled from each other except by the Maintenance staff

1.3 INSTRUCTIONS TO DRIVERS

- the heating and lighting systems operate independently on each power car

- speed must not exceed 20 mph when applying Sandite

- you will be accompanied by a member of the Civil Engineering staff who is required to operate the Sandite application equipment from the leading cab

- the Guard will travel in the brake van of the power car NOT containing the Sandite equipment

- yellow rectangular marker boards with diagonal black lines are provided on the lineside to indicate where Sandite applications should start and finish, as follows:

  - one diagonal line indicates that Sandite application is to start 400 metres (1/4 mile) ahead

  - two diagonal lines indicate the start of Sandite application

  - three diagonal lines indicate the finish of Sandite application

- you must not rely on these marker boards as an indication of areas of low adhesion

Not Used

APPENDIX 2

ACCIDENTS, INCIDENTS AND DEFECTS

2.1 GENERAL INSTRUCTIONS

2.1.1 Dealing with accidents

- if an accident occurs, it is essential that details of the occurrence are noted
- do this as soon as possible after making any necessary arrangements to prevent further danger or after calling the emergency services or other assistance
- Operations Control must be informed of the following:
  - any accident involving death or injury
  - any accident, incident or occurrence (including, for example, a fire, a landslip, flood or snow drift) affecting the normal passage of trains on running lines or requiring the attendance of emergency services
  - any accident of a serious nature
- the Police must be informed if a fatality occurs

2.1.2 Preservation of evidence

- evidence of the cause of a serious accident must not be interfered with before the arrival of the Operating Officer

EXCEPTION: this does not preclude any action necessary to prevent further danger

- no-one is allowed to enter any driving cab of a train involved in a serious accident unless necessary to:
  - secure the train, or
  - rescue personnel, or
  - use the train-radio for emergency purposes, or

2.1 GENERAL INSTRUCTIONS

- obtain protection or emergency equipment

- if necessary to enter the cab as shown above, care must be taken not to disturb any equipment, controls, buttons, etc

- similarly, signalling controls in the signalbox(es) concerned must not be altered, unless:

  - necessary to provide signal protection, or

  - the signal routes are well clear of any which might be relevant to the accident

- as soon as possible after the accident, the Signalman must record the position of all signalling controls and the state of all track circuit indications together with a note of any controls operated to provide signal protection

- an immediate note should be made of ‘perishable’ evidence such as brake pressures and wheel tyre and brake block temperatures

- the original copies of notes or records made in accordance with this instruction should be handed to the Operating Officer

2.1 GENERAL INSTRUCTIONS

2.1.3 Reporting of accidents and incidents

- accidents, incidents and near-misses must be reported using the Company's report forms and reporting procedures
- this is to enable the Company to:
  - meet its statutory obligations to report accidents
  - take any necessary measures to prevent a recurrence
- the details to be reported include:
  - date, time and place
  - details of death/injuries to passengers, employees, contractors or others
  - names and addresses of the above together with any witnesses (where appropriate)
  - a full description of the occurrence

2.1.4 Reporting of defects

- defects or irregularities concerning the signalling system or traction or rolling stock must be reported using the Company's report forms and reporting procedures
- this is in addition to any immediate action required in accordance with the Rules
- report forms must be completed by the Driver or Guard as appropriate and handed in when booking off unless previously handed to an appropriate Supervisor or Person in Charge
- an appropriate entry must be made in the Depot Daily Defects Book

2.1 GENERAL INSTRUCTIONS

2.1.5 Damage to trains or railway property

- if practicable, the names and addresses must be obtained of anyone damaging rolling stock, station buildings or railway property
- if necessary, police assistance must be obtained and those responsible should be pointed out to the police

2.1.6 Fires on trains or railway property

REMINDER: action to be taken on discovery of a fire is shown in Rule Book, Section A

- everyone must be familiar with the location and type of fire extinguishers provided on the railway premises where they work
- traincrews must be familiar with those provided on trains
- portable fire extinguishers are provided in driving cabs, Guards' compartments and in the vestibules of coaching stock
- automatic systems are provided in the engine rooms/ compartments of traction units and generator vans
- everyone must stay well clear if an automatic system is activated

2.1 GENERAL INSTRUCTIONS

2.1.7 Use of Track Circuit Operating Devices (T-CODs)

- if it is necessary to place a T-COD on the line in accordance with the Rules, it must be used as shown below:

(A) CLIP TYPE

- the spring clips must be firmly applied to the top of both running rails
- after use, the clips must be taken out of use

(B) HEAVY DUTY CLAMP TYPE

- fully unscrew the screws on both clamps
- stand in the five foot and pass one clamp under the rail, placing the inner edge of the clamp over the inner edge of the rail
- then engage the outer edge of the clamp over the outer edge of the rail
- pull the device towards you to check that it is properly attached to the rail
- screw down the clamp to the maximum extent possible using the tool provided
- repeat this procedure with the clamp at the other end
- when removing the device, unscrew both screws to the maximum extent

2.1 GENERAL INSTRUCTIONS

(C) GEISMAR TYPE

- with the operating lever still closed, the device must be placed diagonally between the two running rails and then turned parallel to the sleepers

Note: it must not be used where check rails are provided

- the lever must then be pulled to the upright position, returned to horizontal and pulled once more to the upright position
- the steel points should now be making firm contact with the webs of the running rails
- the lever may now be allowed to rest on the sleepers
- the device must be secured in position by use of a padlock
- the device may be removed by removing the padlock and closing the operating lever

• the Signalman must be informed when a T-COD is to be removed

2.2 INSTRUCTIONS TO GUARDS

2.2.1 Train delays

- you must keep passengers advised of the reason for, and likely duration of, any unusual delay
- you must initially give this information frequently and, if a major delay occurs, at least every 10 minutes
- obtain assistance from an employee(s) on the train, if necessary
- if a major delay at a station is likely, you must obtain and give more information about alternative bus services
- if a major delay occurs between stations, you must ensure that passengers do not detrain irregularly
- if, however, it becomes necessary to detrain passengers between stations, this must be authorised by the Operating Officer who will make the necessary arrangements to ensure that this is done safely

2.2.2 Stone throwing at trains

- you must arrange for such incidents to be reported to Operations Control as quickly as possible
- give details of the time and location of the incident, a description of those involved and details of any injury or damage

2.2.3 Accidental train division

- if it is possible to recouple the train, the gangway connections (where provided) must then be locked out of use at the point of division until the couplers have been examined by the Maintenance staff

2.2 INSTRUCTIONS TO GUARDS

- if vehicles with buckeye couplers (drophead type) become divided, you must arrange for them to be recoupled using a screw coupling (with buffers EXTENDED, etc)

- the couplers concerned must remain out of use until examined by the Maintenance staff

2.2.4 Missing or used emergency equipment

- if emergency equipment is found to be missing or needs replacement, arrangements must be made for the equipment to be replaced at the first suitable location

2.2.5 Defective public address system (PA)

- if the PA is defective, you must regularly patrol the affected vehicles and give the information normally given by the PA

- if possible, obtain assistance from any member of staff travelling on the train

2.2.6 Reporting vehicle defects to Operations Control

- you must inform Operations Control as soon as possible if any of the circumstances occur as shown in clauses 2.2.7 to 2.2.11 (except where only a small bodyside window, etc, is broken as shown in clause 2.2.11)

- this is to enable the affected vehicle(s) to be taken out of service as soon as possible, without causing cancellation or delay, unless the defect can be remedied by the Maintenance staff

- make sure that you correctly identify the vehicle(s) affected

2.2 INSTRUCTIONS TO GUARDS

2.2.7 Defective power operated doors

- if a door becomes defective, you must lock and label it out of use
- if all doors on the same side of a vehicle are to be locked out of use, you must, if practicable, move passengers to other vehicles and lock the defective vehicle out of use
- if this would cause severe overcrowding, you may allow the vehicle to remain in public use until the end of the journey, but you must patrol the vehicle frequently and ensure the doors are unlocked quickly if an emergency occurs

2.2.8 Defective door closing warning devices

- if this device fails on any vehicle(s) during the journey, you must, as far as practicable, use the public address system to announce when the doors are to close

2.2.9 Defective central door locking

- if there is a failure to lock or unlock affecting only a part of the train and it is possible to move passengers to unaffected vehicles, the train may continue in service normally provided that part of the train is locked and labelled out of public use
- if it is not possible to move passengers to unaffected vehicles or if the failure to lock or unlock affects the whole train, the train may continue to the first suitable location where it can be taken out of service or it may complete the journey only if serious inconvenience would otherwise result
- the emergency egress facility must be used on any vehicles where there is a failure to unlock if it is not practicable to take those vehicles out of public use

NOTE: Fault Finding Guides are exhibited inside the control panel covers

2.2 INSTRUCTIONS TO GUARDS

2.2.10 Defective train lighting or heating

- you must, as far as practicable, move passengers to unaffected vehicles if:
  - there is a complete failure of saloon lighting in any vehicle and passengers would otherwise travel in darkness, or
  - there is a complete failure of heating or air conditioning in any vehicle and passenger discomfort would otherwise result

2.2.11 Broken bodyside windows

- the train may continue normally but the broken glass must be removed as soon as possible if any of the following is broken:
  - a quarterlight, droplight or similar small window
  - the outer pane (only) of a large window
- if a large window (other than the outer pane only of a double glazed window) is broken, you must:
  - move passengers to other vehicles
  - lock the affected vehicle out of use
  - arrange for the broken glass to be removed as soon as possible

2.2.12 Defective air suspension bags

- if an air suspension bag becomes deflated during the journey, you must:
  - stop the train at the first suitable location where it can be examined

2.2 INSTRUCTIONS TO GUARDS

- isolate the air suspension on the vehicle concerned and, if possible, move passengers to other vehicles and lock the affected vehicle out of use

- tell the Driver that speed must not exceed 60 mph

2.3 INSTRUCTIONS TO DRIVERS

2.3.1 Passenger Communication Apparatus (PCA)

- if you notice an unexplained brake application on a passenger train, you must observe the instructions in Rule Book, Section H, clause 3.6

2.3.2 Stone throwing at trains

- you must arrange for such incidents to be reported to Operations Control as quickly as possible

- give details of the time and location of the incident, a description of those involved and details of any injury or damage

- you must liaise with the Guard as necessary and use the train-radio whenever possible

IMPORTANT: do not allow the incident to distract you from your driving duties

2.3.3 Persons struck by trains

- if a person is struck by your train, you must stop immediately

- you must arrange for protection to be provided on the line(s) concerned in accordance with Rule Book, Section M and for the emergency services to be called

2.3 INSTRUCTIONS TO DRIVERS

- arrangements will be made for you to be relieved as quickly as possible

2.3.4 Derailments, collisions or heavy impacts

- you must ensure that any traction unit or vehicle involved in a heavy impact (including all vehicles attached to those involved) is examined by the Maintenance staff before entering or continuing in service

- this also applies to the unaffected portion of a derailed train unless the derailment occurs at low speed

- if your train collides with an obstruction and there is any possibility of damage, you must:

  - examine your train

  - secure or remove any loose parts

  - check that nothing is left projecting out of gauge

  - advise Operations Control so that, if necessary, the Maintenance staff can attend or be informed

- if the collision involves animals, you must inform the Signalman, giving details of the location and animals involved

NOTE: when appropriate, you must also observe the provisions of Rule Book, Section M

2.3.5 Vehicles with locked wheels

- if the wheels become locked on a vehicle in your train, you must make one of the following arrangements:

- your train may **proceed normally** if you can free the wheels and the flats are not longer than 50mm (2 inches), but you must arrange for the Maintenance staff to be informed

2.3 INSTRUCTIONS TO DRIVERS

- your train may **proceed at 20 mph** to the next place where the vehicle can be examined by the Maintenance staff or detached if:
  - the flats are more serious but not longer than 100mm (4 inches)
  - there is no other apparent damage
- the vehicle concerned **must not be moved** until examined by the Maintenance staff if:
  - you cannot free the wheels, or
  - the flats are longer than 100mm (4 inches), or
  - the flats are deep enough to form a “false flange” on the outside of the wheel, or
  - you are in any doubt whether it is safe to proceed
- you must advise the Signalman if your train cannot proceed normally

2.3.6 Defective or isolated brakes

- if you are not satisfied that the automatic brake is operating correctly, you must stop your train immediately
- if it is necessary to isolate the automatic brake on any or all wheelsets on a vehicle(s) during the journey, you must then proceed at a reduced speed which will enable you to maintain complete control of the train
- if, however, it is necessary to isolate the brake on all wheelsets on the first or last vehicles during the journey, you must:
  - if practicable, arrange for any passengers to be transferred from the affected vehicle

2.3 INSTRUCTIONS TO DRIVERS

- arrange for the Guard to ride in this vehicle if it is equipped with a parking brake

- proceed at not more than 5 mph to the next place where the train can be taken out of service

- arrange for an assisting train to be coupled next to the defective vehicle if the failure occurs on an 80 class DEMU trailer vehicle on which the parking brake is defective

• you must advise the Signalman if your train cannot proceed normally

2.3.7 Defective headlights

• if the headlight fails during the journey, you must observe the instructions in Rule Book, Section H, clause 3.6

• when a handlamp is in use as a temporary replacement for a failed headlight, this must be replaced by a Portable Headlight Unit as soon as practicable

• these units are kept at the following stations:

- Bangor
- Belfast Central
- Belfast Great Victoria Street
- Coleraine
- Larne Harbour
- Lisburn
- Newry
- Portadown

and at the following signal boxes:

- Londonderry

• normal speed may be resumed when a Portable Headlight Unit is in use

2.3 INSTRUCTIONS TO DRIVERS

2.3.8 Defective train-radio

- if the train-radio is defective, you must stop at the first suitable location where you can advise the Signalman of the circumstances
- the traction unit must then be taken out of service immediately or as soon as possible
- if it is necessary to continue to a suitable location for this purpose, you must proceed cautiously to the first location where a portable radio can be obtained
- portable radios are kept at the same locations as Portable Headlight Units, as shown in clause 2.3.7
- after obtaining a portable radio, you must :
  - make a successful test call
  - advise the Signalman that a portable radio is now in use
  - resume the journey at normal speed, keeping the radio switched on and readily to hand

2.3.9 Defective windscreen wipers or damaged windscreens

- if such defect or damage occurs during the journey, the train may continue normally provided (or for as long as) you consider it safe to do so
- you must arrange for Operations Control to be advised of the circumstances
- the traction unit must be taken out of service as soon as possible without causing cancellation or delay
- if, however, the defect or damage impairs the view of the line ahead, you must:

2.3 INSTRUCTIONS TO DRIVERS

- proceed at a reduced speed which will enable you to obtain a satisfactory view of the line ahead
- advise the Signalman of the circumstances

- in these circumstances, the traction unit must be taken out of service immediately or as soon as possible

2.3.10 Defective sanding equipment

- if the sanding equipment fails during the journey, you must arrange for Operations Control to be informed
- the traction unit must be taken out of service as soon as possible without causing cancellation or delay
- if, however, low adhesion conditions apply or you consider that difficulties in stopping may arise, you must, instead:
  - proceed at a reduced speed which will enable you to maintain complete control of your train
  - advise the Signalman of the circumstances
- in these circumstances, the traction unit must be taken out of service immediately or as soon as possible

2.3.11 Defective Driver's Reminder Appliance (DRA)

- if the DRA fails during the journey, you must:
  - isolate the DRA
  - arrange for the Operations Control to be informed
- the traction unit must be taken out of service as soon as possible without causing cancellation or delay
- in the interim, you must take extra care when the DRA should be in the WAITING SIGNAL position

2.3 INSTRUCTIONS TO DRIVERS

2.3.12 Defective air suspension bags

- if it is necessary to isolate a defective air suspension bag during the journey, speed must not then exceed 60 mph
- you must advise the Signalman of the circumstances and check that the Guard has made the necessary arrangements in accordance with clause 2.2.12

2.3.13 Vehicles with hot axle boxes

- if you become aware of a hot axle box on your train, you must stop immediately and advise the Signalman of the circumstances
- you must ensure that any further movement of the vehicle complies with the following instructions:
  - speed not to exceed 10 mph or walking pace over points or crossing
  - movement not to proceed beyond the first siding where the vehicle can be detached
  - passengers to be moved from the vehicle
  - passage of trains to be stopped on any adjacent line while the movement takes place
- if, however, you are in any doubt whether the movement can safely be made, you must wait until the vehicle is examined by the Maintenance staff

2.4 INSTRUCTIONS CONCERNING BRIDGE STRIKES

2.4.1 To whom this instruction applies

- Nominated Persons specifically passed as competent in this instruction by the Civil Engineer

2.4.2 When this instruction applies

- when you are required to examine an overbridge or underbridge which has been struck by a road vehicle and the Bridge Engineer is not immediately available

2.4.3 Instructions to be observed

- you must establish whether the damage, if any, appears to be only slight, as shown in clause 2.4.4
- if so, you may authorise the Signalman to permit trains to pass at 5 mph until the Bridge Engineer arrives
- you must observe the bridge during the passage of each train
- you do not need to advise the Signalman that the bridge remains safe for the passage of the next train
- you must, however, immediately tell the Signalman if the damage worsens and it is necessary for the passage of trains to be stopped until the Bridge Engineer arrives
- if there is an adjacent but separate structure(s) over the line which is not affected by the incident, you may authorise the resumption of normal working over that structure(s) if trains have been stopped

2.4 INSTRUCTIONS CONCERNING BRIDGE STRIKES

2.4.4 Checking whether damage is slight

- before authorising the passage of trains across an underbridge (as shown above), you must be certain that:

  - the vertical and horizontal alignment of the track appears undisturbed

  - the rail head is undamaged

  - there is no loss of ballast under any sleeper

  AND, in the case of a METAL bridge:

  - the bridge is not deformed or displaced from its bearings

  - there is no other damage (apart from paint damage)

  AND, in the case of a MASONRY arch:

  - the depth of displaced material does not exceed 150mm (6 inches) and the area affected does not exceed one square metre (one square yard)

  AND, in the case of a BRICK arch:

  - the depth of displaced material does not exceed one brick and the area affected does not exceed one square metre (one square yard)

  AND, in the case of a CONCRETE bridge:

  - the bridge is not displaced from its bearings

  - the internal reinforcing bars are not cut if exposed to damage

2.4 INSTRUCTIONS CONCERNING BRIDGE STRIKES

- before authorising the passage of trains beneath an overbridge (as shown above), you must be certain that:

  - the line is clear of debris

  - there is no risk of further debris falling on or near the line

  - there is no cracking or displacement (horizontally or vertically) of the parapet wall above or nearly above the line

Not Used

APPENDIX 3

TRAIN CONTROL SYSTEMS

3.1 INSTRUCTIONS TO DRIVERS - AUTOMATIC WARNING SYSTEM (AWS)

3.1.1 Principles

- AWS is provided as an aid to driving duties
- it does not relieve you of your responsibilities for observing signals or speed restrictions

3.1.2 Location

- AWS track equipment is normally located 183 metres (200 yards) before reaching the signal or Warning Board/Indicator to which it applies
- AWS is not provided in certain station areas; where such a “Gap” exists in the normal provision of AWS, the start of the gap is denoted by a white circular sign showing AWS with a red ‘X’, and the end is denoted by a white square sign showing AWS
- AWS is not provided in the wrong direction on certain bi-directional lines; the start of such arrangements is denoted by a white diamond sign showing AWS with a red ‘X’ and the end is denoted by a white diamond sign showing AWS

NOTE: on these lines, AWS is, however, provided for wrong direction movements approaching temporary or emergency speed restrictions

- where the AWS magnet is not suppressed for movements over a single line in the opposite direction to which it applies, a Cancelling Indicator is provided 183 metres (200 yards) after passing the magnet
- the Cancelling Indicator comprises a white “X” on a blue background
- AWS is not provided on lines north of Coleraine

3.1 INSTRUCTIONS TO DRIVERS - AUTOMATIC WARNING SYSTEM (AWS)

3.1.3 Audible indications

- where AWS is provided, a warning indication (HORN) is given when:
  - approaching a colour light signal exhibiting a red, or single or double yellow aspect, or
  - approaching a distant signal exhibiting a caution indication, or
  - approaching a Warning Board, Cancelling Indicator or Emergency Indicator provided in connection with a temporary or emergency speed restriction, or
  - passing over an AWS test inductor
- where AWS is provided, a clear indication (BELL) is given when:
  - approaching a colour light signal exhibiting a green aspect, or
  - approaching a distant signal exhibiting a clear indication

EXCEPTION: **a warning indication (HORN) is given when a Warning Board or Emergency Indicator is positioned at a signal with an associated AWS magnet irrespective of the aspect/indication exhibited**

3.1 INSTRUCTIONS TO DRIVERS - AUTOMATIC WARNING SYSTEM (AWS)

3.1.4 Visual indications

- a visual warning indication is provided to remind you when you have received AND CANCELLED an AWS warning
- this comprises a black and yellow sunflower indication
- this indication remains displayed until the traction unit passes over the next AWS magnet when it automatically changes to the normal indication (all black)

3.1.5 Cancellation

- you must IMMEDIATELY cancel each warning indication and act in accordance with the aspect/indication of the signal or Warning Board/Indicator, etc concerned
- you need take no further action where a Cancelling Indicator is provided, denoting that the AWS warning just received does not apply in the direction of your train
- you must treat the signal concerned as being at Caution if an AWS warning indication is received when the signal is displaying a green aspect or clear (semaphore) indication
- do this unless the signal changes to a green aspect or clear indication after the traction unit has passed over the AWS track equipment, or a Warning Board or Emergency Indicator is positioned at the Signal
- if an AWS warning indication is received (and cancelled) and you are certain the traction unit has not passed over any AWS track equipment, the train may continue normally but you must report the fault as soon as practicable
- you must disregard AWS indications (but cancel any warning indications) received during a movement which has been required to pass a signal at Danger or proceed in the wrong direction where a signal is not provided

3.1 INSTRUCTIONS TO DRIVERS - AUTOMATIC WARNING SYSTEM (AWS)

3.1.6 Failure

- if you receive an incorrect or no AWS indication where an AWS warning should be given, you must immediately inform the Signalman
- if possible, use the train-radio for this purpose so that the Driver of the following train may be alerted before approaching the signal concerned
- tell the Signalman if successive failures occur indicating that the failure affects the traction unit and not the track equipment
- if you receive an incorrect or no AWS indication where an AWS clear indication should be given and the correct indications are received at subsequent signals, you must inform the Signalman at the first convenient opportunity
- a traction unit on which a wrongside AWS failure occurs must be taken out of service immediately or as soon as possible, unless it can be established that only the track equipment is defective
- when making your written report of an AWS failure, you must give the signal number/location (or location of Warning Board /Indicator) together with the appropriate fault code, as follows:

Required Audible Indication	Actual Audible Indication	Fault Code
Clear	horn and bell	1
	horn instead of bell	2
	none	3
Warning	bell and horn	4
	bell instead of horn	5
	brake without horn	6
	none	7

3.1 INSTRUCTIONS TO DRIVERS - AUTOMATIC WARNING SYSTEM (AWS)

None	horn	8
	bell	9
Unable to cancel		10
Indicator not changing to all black		11

3.1.7 Isolation

- you must not take any train into service at York Road Depot if the AWS is isolated or is found to be defective when passing over a test inductor
- if the AWS is isolated elsewhere, you must:
  - inform Operations Control as soon as possible
  - enter the details in the Defects Book
  - in an AWS area, obtain the services of a competent person to assist with verifying signal aspects (see clause 3.1.8)
- when driven from the cab in which the AWS is isolated, speed must not exceed 40 mph unless a Competent Person is provided
- during fog or falling snow, speed must not exceed 40 mph whether or not a Competent Person is provided
- you must isolate the AWS if cancellation of a warning indication does not stop the horn or brake application
- if the traction unit stops with a receiver over the track equipment, you must make the AWS operative again immediately on restarting

3.1 INSTRUCTIONS TO DRIVERS - AUTOMATIC WARNING SYSTEM (AWS)

- you must not isolate the AWS equipment without a legitimate reason

- a traction unit on which the AWS is isolated must be taken out of service immediately, or as soon as possible

3.1.8 Provision of Competent Person (CP)

- the instructions in clause 3.3.8 concerning the provision of a CP for TPWS apply in a similar manner if the AWS is isolated

EXCEPTION: these instructions do not apply when travelling over a portion of line where AWS is not provided

3.2 INSTRUCTIONS TO DRIVERS - CONTINUOUS AUTOMATIC WARNING SYSTEM (CAWS)

3.2.1 Principles

- CAWS is an in-cab signalling system which functions in conjunction with lineside signals

- it provides a continuous indication of the signal aspect which currently applies to your train

- the train must be driven in accordance with the lineside signals in the normal manner with the following two exceptions:

  - when a **NORMAL CAWS UPGRADE** occurs, as described in these instructions, the train may proceed in accordance with the less restrictive CAWS indication

  - when an **ABNORMAL CAWS DOWNGRADE** occurs, the train must stop immediately and may then proceed only as shown in these instructions

3.2 INSTRUCTIONS TO DRIVERS - CONTINUOUS AUTOMATIC WARNING SYSTEM (CAWS)

3.2.2 Location

- CAWS ground equipment is provided on the Down line between Dublin (Connolly Station) and 57.50 m.p. and on the Up line between 58.25 m.p. and Dublin (Connolly Station)
- Carrier System 2 applies between Dublin (Connolly Station) and 12.00 m.p. and Carrier System 1 applies beyond
- CAWS is not provided in the reverse direction on the bi-directional lines in the Dundalk area

3.2.3 Testing

- if the traction unit will be required to work over CAWS fitted lines, the CAWS traction equipment must be tested as follows:
  - before entering service
  - whenever DSD/Vigilance is to be tested as part of preparation requirements
- the test must be carried out in accordance with the procedures shown in the Driver's Manual

3.2.4 Operation

- when entering a CAWS area, you must:
  - place the Carrier Selection switch to the appropriate position
  - place the CAWS disable switch to NORMAL
- when passing from one CAWS Carrier System area to another, you must alter the selection switch accordingly

3.2 INSTRUCTIONS TO DRIVERS - CONTINUOUS AUTOMATIC WARNING SYSTEM (CAWS)

- the CAWS Aspect Display Unit shows the aspect of the signal being approached
- this indication is normally updated 200-400 metres (200-440 yards) before reaching the signal concerned and, except as shown below, remains exhibited until reaching a similar distance on the approach to the next signal where it is updated once more
- if, at this distance from a signal, the CAWS indication changes to a MORE RESTRICTIVE aspect, the following applies:
  - a CONTINUOUS audible warning is given
  - the Acknowledgement button(s) illuminates
  - this warning must be cancelled within 7 seconds
  - you must observe the signal aspect shown
- this is known as a **NORMAL CAWS DOWNGRADE**
- if you do not acknowledge this warning within 7 seconds, the following applies:
  - an emergency brake application occurs
  - an INTERMITTENT audible warning is given for 60 seconds
  - after this period, during which an upgrade may be received, you may cancel the warning and release the brakes

3.2 INSTRUCTIONS TO DRIVERS - CONTINUOUS AUTOMATIC WARNING SYSTEM (CAWS)

- if the CAWS indication changes to a MORE RESTRICTIVE aspect other than on the approach to a signal showing a more restrictive aspect or buffer stops on a dead-end line or when leaving the CAWS area, you must:

  - stop immediately

  - contact the Signalman

- this is known as **ABNORMAL CAWS DOWNGRADE**

- you must then observe the Signalman's instructions and test the CAWS equipment before restarting

- if unable to contact the Signalman, you may then proceed only as follows:

  - if the abnormal CAWS downgrade was to RED **and this indication remains**, you must proceed cautiously, at a speed not exceeding 10 mph, prepared to stop short of any obstruction to the next stop signal from where you must contact the Signalman

  - in all other circumstances, you must proceed at reduced speed to the next stop signal which must be obeyed in the normal manner, but you must advise the Signalman of the circumstances as quickly as possible

- when, after the train has passed a signal showing a SINGLE or DOUBLE YELLOW aspect, the CAWS indication changes to show a less restrictive aspect, this indicates that the line ahead is now clear to the extent that would have enabled this less restrictive aspect to have been shown at the previous signal

- this is known as a **NORMAL CAWS UPGRADE**

- this is accompanied by a short warble tone which does not require acknowledgement

3.2 INSTRUCTIONS TO DRIVERS - CONTINUOUS AUTOMATIC WARNING SYSTEM (CAWS)

- the train may now proceed in accordance with this less restrictive aspect

- when leaving a CAWS area, you must:

  - acknowledge the RED CAWS indication

  - place the CAWS disable switch to DISABLED

3.2.5 Failure and isolation

- if the CAWS indication does not upgrade to the aspect of the first lineside signal displaying a proceed aspect after entering a CAWS area, you must stop immediately and observe the instructions which are then given by the Signalman

- if an abnormal CAWS downgrade occurs which is caused by a failure of the CAWS in-cab equipment, the CAWS must be isolated if the train brakes cannot be released

- when the CAWS is isolated, the following applies:

  - an INTERMITTENT audible warning is given for 60 seconds

  - any further warnings or lamp indications must be disregarded

  - the CAWS disable switch must be placed to DISABLED

- if the train is to proceed and the CAWS is non-operational or isolated, you must advise the Signalman and obtain the services of a competent person to assist with verifying signal aspects

- this person must remain in the cab until the train has passed clear of the CAWS area

3.2 INSTRUCTIONS TO DRIVERS - CONTINUOUS AUTOMATIC WARNING SYSTEM (CAWS)

- if, however, it is only possible to isolate the CAWS by isolating the DSD/Vigilance, this person must remain in the cab throughout the journey unless a person is provided as shown in Rule Book, Section H, clause 3.6, after the train has passed clear of the CAWS area

- if the CAWS in-cab equipment fails before entering a CAWS area, arrangements must be made to obtain the services of a competent person to assist with verifying signal aspects immediately or before entering the CAWS area, as appropriate

- this also applies if, exceptionally, authority is given for a traction unit not fitted with CAWS equipment to enter a CAWS area

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

3.3.1 Principles

- TPWS intervenes if:

  - a train approaches a signal at Danger at an unsafe speed, or

  - a train inadvertently passes a signal at Danger

- you must observe all signals in the normal manner and not rely on the TPWS

- you must not isolate or override the TPWS except as shown in these instructions

NOTE: all TPWS functions are recorded on the on-train data recorder (OTMR)

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

3.3.2 Location

- TPWS is provided at certain stop signals as shown in Appendix 12

3.3.3 Testing

- you must check that all TPWS indications are operating correctly in each driving cab which will be used when preparing your train before entering service
- if the TPWS is defective or isolated in any driving cab which will be used, the following applies:
  - at York Road Depot, the train must not enter service
  - elsewhere, the train may enter service and work as a passenger train to Belfast (Central or Great Victoria Street) thence as an empty train to York Road Depot; you must isolate the TPWS (see clause 3.3.7)
- if the seal is broken on the TPWS isolating switch, the following applies:
  - at York Road Depot, the train must not enter service
  - elsewhere, the train may enter or remain in service but you must first check that an appropriate entry has been made in the Defect Book (see clause 3.3.7)

3.3.4 When authorised to pass a signal at Danger

- when authorised by the Signalman to pass one TPWS-fitted signal at a time, you will be instructed to override the TPWS
- if the train does not pass the signal within 20 seconds of operating the override, you may operate it again but not before 20 seconds has elapsed

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

- you must, however, temporarily isolate the TPWS as shown in clause 3.3.7 if you are authorised to:

  - pass two or more signals at Danger at a time where any signal is TPWS-fitted, or

  - make an unsignalled wrong direction movement where any right direction signal is TPWS-fitted, or

  - enter a possession where any signal is TPWS-fitted

3.3.5 If stopped by TPWS intervention

- if an uncontrolled brake application occurs where TPWS is provided, you must:

  - operate the AWS reset button to acknowledge the TPWS brake demand indication

  - make sure the train stops

  - immediately advise the Signalman of the circumstances

  - make no further movement until authorised by the Signalman (and the brake demand light is extinguished)

IMPORTANT: if a TPWS brake demand indication is received, you must assume that a TPWS intervention has occurred; you must not then proceed except as shown above

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

3.3.6 Failure

(a) If the TPWS train equipment fails in service

- this instruction applies if:
  - spurious TPWS interventions occur indicating that the train equipment is defective, or
  - the TPWS fails to intervene when it should
- in either case, you must:
  - stop immediately
  - advise the Signalman of the circumstances
  - make no further movement until authorised by the Signalman
  - isolate the TPWS (see clause 3.3.7) when authorised to proceed

(b) If the TPWS track equipment fails

- if the TPWS track equipment fails causing spurious brake applications, the Signalman will arrange for you to be informed at the previous stop signal
- if the failure affects the TPWS Train Stop, the Signalman will instruct you to operate the Train Stop Override at the signal concerned

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

3.3.7 Isolation

- the TPWS must be isolated only in the following circumstances:

(a) If the TPWS train equipment fails in service or before entering service at other than York Road Depot

- you must isolate the TPWS immediately
- you must then inform the Signalman who will obtain permission from Operations Control for the train to enter or remain in service after making any necessary arrangements to provide a Competent Person (see clause 3.3.8)
- when driven from the cab in which the TPWS is isolated, speed must not exceed 40 mph unless a Competent Person is present
- during fog or falling snow, speed must not exceed 40 mph whether or not a Competent Person is present

(b) If a train is authorised to pass two or more signals at Danger where any signal is TPWS-fitted

- you must isolate the TPWS before passing the first signal at Danger
- you must remove the isolation immediately the train passes clear of the last signal to be passed at Danger

(c) If a train is authorised to make an unsignalled wrong direction movement where any right direction signal is TPWS-fitted

- you must isolate the TPWS before starting
- you must remove the isolation immediately on completion of the movement

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

(d) If a train is propelled or driven from the rear cab where any signal is TPWS-fitted

- you must isolate the TPWS before starting
- you must remove the isolation immediately on completion of the movement

(e) If a train is to be assisted where any signal is TPWS-fitted

- you must isolate the TPWS in the cab from which the rearmost train will be driven before starting
- you must remove the isolation immediately before the trains are uncoupled

(f) If a train is to enter a possession where any signal is TPWS-fitted

- you must isolate the TPWS before entering the possession
- you must remove the isolation immediately before leaving the possession

- an AWS isolation also isolates the TPWS in which case the train must be considered as one on which the TPWS equipment has failed in service
- a TPWS isolation does not affect the AWS
- whenever you isolate the TPWS, you must record in the Defect Book the time/date when the seal was broken on the Temporary Isolation Switch together with your name and train ID
- if a subsequent isolation is made before the seal has been replaced, you must make a similar entry in respect of the isolation in the Defect Book

3.3 INSTRUCTIONS TO DRIVERS - TRAIN PROTECTION AND WARNING SYSTEM (TPWS)

3.3.8 Provision of a Competent Person (CP)

- you must arrange to be accompanied by a CP if the TPWS is isolated as shown in clause 3.3.7 (a) AND the train is to be driven from the cab concerned
- the CP must be provided from the start of the journey if the failure occurs before entering service or as soon as possible if the failure occurs elsewhere

NOTE: a CP is not required (and speed need not be reduced during fog or falling snow) when travelling over a portion of line where TPWS is not provided

- the CP must have the necessary traction and route knowledge
- you must tell the CP that:
  - the TPWS is isolated
  - you require assistance in observing signals
  - no conversation is allowed except to confirm the commentary you will give (as shown below) and to indicate any further action you should take
- when approaching each signal, you must:
  - call out the aspect/indication
  - give a commentary on speed reduction and distance remaining when approaching caution or stop aspects
- it is vital that you do not allow the presence of the CP to distract you from your driving duties

APPENDIX 4

WORKING OF THE AUTOMATIC BRAKE

4.1 GENERAL INSTRUCTIONS

4.1.1 Permitted tolerances when testing brake continuity

- where the instructions in this Appendix require pressure to rise or fall to a specified level, the following tolerances are permitted:

REQUIREMENT	TOLERANCE
Zero	0-6 psi (0 to 0.5 BAR)
55 psi	50-58 psi (3.5 to 4 BAR)
70 psi	65-75 psi (4.5 to 5 BAR)
100 psi	90-105 psi (6.5 to 7 BAR)

4.2 INSTRUCTIONS TO TRAINCREW - UIC 2-PIPE AIR BRAKE SYSTEM

4.2.1 Description

- the system comprises:
  - a brake pipe, controlling the operation of the brakes, regulated by the Driver's brake valve, as follows:

brakes released	70 psi
full service application	48 psi
emergency application	zero

  - a main reservoir pipe, charging the auxiliary reservoir on each vehicle with air supplied from the traction unit at 100 psi

4.2 INSTRUCTIONS TO TRAINCREW - UIC 2-PIPE AIR BRAKE SYSTEM

- the system must be properly connected throughout the train by the following pipe connections:

PIPE CONNECTION	COLOUR OF COCKS
Brake	Red
Main Reservoir	Yellow

- each vehicle is equipped with a distributor valve which applies and releases the brakes on that vehicle in response to brake pressure changes
- to isolate the brakes (on both bogies), the Distributor Isolating Cock (a red handle on one side of the vehicle) must be operated to the HORIZONTAL position and the release cord pulled to release the brakes
- an auxiliary reservoir isolating cock is also provided
- single-pipe operation is permitted as follows:
  - on the whole train, if the required main reservoir pipe pressure (100 psi) cannot be obtained, or
  - on part of the train where a single-piped vehicle(s) or a vehicle(s) with a defective main reservoir pipe is conveyed

4.2.2 Instructions to Guards

- when a brake continuity test is required (as shown in Appendix 1), you must:
  - check that the Driver is ready for the test

4.2 INSTRUCTIONS TO TRAINCREW - UIC 2-PIPE AIR BRAKE SYSTEM

- open the emergency brake valve in the rear brakevan and check that brake pipe pressure (red needle) falls to zero
- close the brake valve
- then request the Driver to release the brake and check that pressure rises to 70 psi

- alternatively, where there are vehicles behind the rear brake van (or a brake van is not provided), you must, when the Driver is ready for the test:
  - go to the rear of the last vehicle
  - open the brake pipe cock and check that there is an exhaust of air
  - when the air is exhausted, close the cock
- in either case, tell the Driver when this procedure has been satisfactorily completed
- you must also tell the Driver if single-pipe operation applies on all or part of the train

4.2.3 Instructions to Drivers

- before telling the Guard you are ready to carry out the brake continuity test, you must ensure that brake pipe pressure is 70 psi
- when the Guard opens the emergency brake valve (or brake pipe cock on the last vehicle), check that brake pipe pressure drops rapidly to zero and does not start rising again
- when requested by the Guard (or after a suitable lapse of time if the Guard is using the brake cock on the last vehicle), you must release the brake and check that brake pipe pressure rises to 70 psi

4.3 INSTRUCTIONS TO TRAINCREW - UIC 2-PIPE AIR BRAKE SYSTEM (450 CLASS DEMU)

4.3.1 Description

- the description in clause 4.2.1 applies except that the bogies on 450 class DEMU power cars can be isolated separately

4.3.2 Instructions to Guards

- when a brake continuity test is required (as shown in Appendix 1), you must:
  - check that the Driver is ready for the test
  - go to the rear cab
  - request the Driver to make an emergency brake application and check that brake pipe pressure falls to zero and brake cylinder pressure is 55 psi
  - then request the Driver to release the brake and check that brake pipe pressure rises to 70 psi and brake cylinder pressure falls to zero
  - tell the Driver when this has been satisfactorily completed

4.3.3 Instructions to Drivers

- before telling the Guard you are ready to carry out the brake continuity test, you must ensure that brake pipe pressure is 70 psi
- make an emergency brake application when requested by the Guard and check that brake pipe pressure drops rapidly to zero and does not start rising again
- release the brake when requested by the Guard and check that brake pipe pressure rises to 70 psi

4.4 INSTRUCTIONS TO TRAINCREW - NIR 3-PIPE AIR BRAKE SYSTEM (80 CLASS DEMU)

4.4.1 Description

- the system comprises:

  - a straight air brake, controlled by the Driver's brake valve, operating the brakes on each vehicle by means of a relay valve admitting air from the auxiliary reservoir (charged at 100 psi) to the brake cylinders

  - electro-pneumatic assistance (EP), provided by a micro-switch on the Driver's brake valve in circuit with a magnet valve on each vehicle, causing air to be admitted immediately and simultaneously on each vehicle from the auxiliary reservoir to the brake cylinder when a brake application is made

NOTES: (1) there is no EP release of brakes

(2) when the EP system is isolated, the brakes remain operative but are slower acting

  - an emergency brake, controlled by the emergency pipe charging the emergency reservoir on each vehicle to 70 psi, operated by any of the following:

    * Driver's brake handle placed to Emergency

    * operation of the Driver's Safety Device or the Guard's Emergency Valve or the Passenger Communication Apparatus

4.4 INSTRUCTIONS TO TRAINCREW - NIR 3-PIPE AIR BRAKE SYSTEM (80 CLASS DEMU)

- the system must be properly connected throughout the train by the following pipe connections:-

PIPE CONNECTION	COLOUR OF COCKS
Straight air	Green
Main Reservoir	Yellow
Emergency	Red

- on power cars, the two inner wheelsets can be isolated separately from the two outer wheelsets; if the brakes on both bogies are to be isolated, the release lever on both sides must be operated
- brake isolating cocks are not provided on trailer vehicles
- if it is necessary to isolate the brakes on the driving trailer only or on both trailer vehicles, the brake cocks must be closed between the isolated vehicle(s) and the unaffected vehicle(s)
- the release handle must be operated on the isolated vehicle(s) and a check made to ensure that the brake blocks are free
- the main reservoir tank on the isolated vehicle must be exhausted

4.4.2 Instructions to Guards

- when a brake continuity test is required (as shown in Appendix 1), you must:
  - check that the Driver is ready for the test
  - go to the rear cab

4.4 INSTRUCTIONS TO TRAINCREW - NIR 3-PIPE AIR BRAKE SYSTEM (80 CLASS DEMU)

- request the Driver to make an emergency brake application and check that brake pipe pressure falls to zero
- then request the Driver to release the brake and check that brake pipe pressure rises to 70 psi
- tell the Driver when this has been satisfactorily completed

• as part of this test, you must also co-operate with the Driver to test the EP system as follows:

- check that the Driver is ready for this part of the test
- go alongside the train and push in each EP indicator
- tell the Driver when this is done
- when told by the Driver that the brakes are now applied, check that each EP indicator has come out and confirm this to the Driver

4.4.3 Instructions to Drivers

• before telling the Guard you are ready to carry out the brake continuity test, you must ensure that brake pipe pressure is 70 psi

• make an emergency brake application when requested by the Guard and check that brake pipe pressure drops rapidly to zero and does not start rising again

• release the brake when requested by the Guard and check that brake pipe pressure rises to 70 psi

• before the EP system is tested, you must ensure that:

- the EP isolating switch is NORMAL in each cab

4.4 INSTRUCTIONS TO TRAINCREW - NIR 3-PIPE AIR BRAKE SYSTEM (80 CLASS DEMU)

- emergency pipe pressure is 70 psi

- when told by the Guard that all EP indicators are pushed IN, you must:

  - apply the service brake

  - then obtain an assurance from the Guard that all EP indicators are now OUT

4.5 INSTRUCTIONS TO TRAINCREW - VACUUM BRAKE SYSTEM

4.5.1 Description

- the system comprises a vacuum hose, controlling the operation of the brakes, release being achieved by the vacuum created (and maintained) by the exhauster system on the locomotive and application being achieved by the admission of air to the system as a result of any of the following:

  - operation of Driver's brake handle

  - operation of the Driver's Safety Device

  - accidental train division

- a VACUUM HOSE TAIL PIECE must be connected to the vacuum hose at the rear of the last vehicle

4.5.2 Instructions to Guards

- when a brake continuity test is required (as shown in Appendix 1), you must:

  - check that the Driver is ready for the test

4.5 INSTRUCTIONS TO TRAINCREW - VACUUM BRAKE SYSTEM

- check that at least 16 inches of vacuum is registered on the gauge on the vacuum hose tail piece

- open the brake valve on the tail piece and check that there is an inrush of air and the gauge pointer falls

- close this brake valve and check that the gauge pointer rises to at least 16 inches of vacuum once more

4.5.3 Instructions to Drivers

- before telling the Guard you are ready to carry out the brake continuity test, you must create and maintain 21 inches of vacuum

APPENDIX 5

COUPLERS AND COUPLINGS

5.1 GENERAL INSTRUCTIONS TO SHUNTERS

5.1.1 Instructions to be observed

- you must observe the instructions in this Appendix 5 concerning couplers and couplings
- you must also observe the instructions in Appendix 1 (under General Instructions) concerning the use of the automatic brake during train movements and during shunting movements
- you must also observe the instructions in Appendix 4 (under the descriptions of the systems) concerning the connecting of brake pipes, etc, and the release or isolation of brakes

5.1.2 Personal safety

- before coupling or uncoupling any electrical heating or lighting connections, you must ensure the power is OFF
- when attending to automatic couplers, you must observe the Rules concerning your personal safety, as shown in Rule Book, Section J

5.1.3 When handling couplers or couplings

- care must be taken when coupling or uncoupling jumper cables
- all necessary jumper cables must be connected with plugs correctly inserted and socket lids firmly in place
- make sure that O rings, where required, are in place

5.1 GENERAL INSTRUCTIONS TO SHUNTERS

- unused jumper cables must be inserted in the dummy receptacle sockets
- lids of unused sockets must be closed
- any defect or damage, or dirt likely to affect its correct operation, must immediately be reported to the Maintenance staff

5.2 INSTRUCTIONS TO SHUNTERS - BUCK-EYE AUTOMATIC COUPLERS

NOTE: Clauses 5.2.1 to 5.2.6 apply to the drophead type

5.2.1 Before coupling

- first, make sure that the vehicle(s) to remain stationary are properly secured by parking brakes and/or scotches
- then, on the vehicles to be coupled, make sure that:
  - the buffers are RETRACTED
  - the buffer saddles are on their hooks
  - the couplers are RAISED with each support pin inserted and LOCKED, with the tail piece of the pin pointing downwards
  - the knuckle of one (or both, if necessary, when on a curve) coupler head is OPEN

NOTE: the coupler head is opened by pulling the uncoupling chain which also raises the locking bar

5.2 INSTRUCTIONS TO SHUNTERS - BUCK-EYE AUTOMATIC COUPLERS

5.2.2 When coupling

- check that the locking bar(s) has dropped and the knuckles are engaged

IMPORTANT: you must make certain that this is so by looking carefully or feeling underneath to ensure that the locking bars project about 25mm (1 inch) below the coupler heads

- then carry out a PULL AWAY test before coupling the other connections

5.2.3 Before uncoupling

- disconnect all other connections

5.2.4 When uncoupling

- pull and firmly hold the uncoupling chain
- do this until the vehicles are apart

5.2.5 When couplers are not in use

- you must ensure that the buffers are EXTENDED and the buffer saddles in place, when:
  - a vehicle is stabled against buffer stops, or
  - a vehicle is stabled in sidings where vehicles with incompatible couplers/couplings are or may be placed adjacent
- you must also ensure that the support pin is placed in the coupler body, or, on 80 class stock, in the pocket on the headstock

5.2 INSTRUCTIONS TO SHUNTERS - BUCK-EYE AUTOMATIC COUPLERS

5.2.6 When couplers are in use

- the buffer saddles must be kept on the retaining hooks

5.2.7 Solid shank type couplers

- the instructions applicable to drophead buck-eye couplers apply except as shown below
- buffers are not fitted and so references to buffers and buffer saddles should be disregarded
- the locking bar has a ring at its end
- when RAISED (i.e. unlocked), it projects 50 mm (2 inches) below the coupler head
- when LOWERED (i.e. locked), it projects 100 mm (4 inches) below

5.3 INSTRUCTIONS TO SHUNTERS - TIGHTLOCK AUTOMATIC COUPLERS

5.3.1 Compatibility

- a Tightlock coupler may also be coupled to a Buckeye coupler in the RAISED position (only)

5.3.2 Coupling

- before coupling, the knuckle part of the coupler must be OPEN
- when coupled, both butterfly indicators must be visible and there must be clearance between them and the coupler body

5.3 INSTRUCTIONS TO SHUNTERS - TIGHTLOCK AUTOMATIC COUPLERS

5.3.3 Uncoupling – (manually)

- insert the uncoupling bar
- lift the bar upwards

5.4 INSTRUCTIONS TO SHUNTERS - DELLNER AUTOMATIC COUPLERS

NOTE: these instructions apply when coupling or uncoupling a drophead coupler to/from a fixed coupler

5.4.1 Before coupling

- first, make sure that the vehicle(s) to remain stationary are properly secured by parking brakes and/or scotches
- then check that:
  - on the locomotive, the drophead coupler is RAISED and the buffers RETRACTED
  - on both vehicles, the coupler safety pin is REMOVED

5.4.2 After coupling

- visually check that the couplers are engaged
- then REPLACE the coupler safety pin on both couplers

5.4.3 Before uncoupling

- REMOVE the coupler safety pin on both couplers

5.4 INSTRUCTIONS TO SHUNTERS - DELLNER AUTOMATIC COUPLERS

5.4.4 When uncoupling

- pull the uncoupling handle on either vehicle
- hold this handle until the vehicles are apart
- if resistance is met, you must pull both handles or arrange for the vehicles to be pushed together slightly

NOTE: if a release lever is inadvertently pulled, you must arrange for the vehicles to be uncoupled

5.4.5 When couplers are not in use

- unless the coupler is to be used again immediately, you must LOWER the coupler and ensure that the buffers are EXTENDED
- to lower the coupler, you must:
  - lift the coupler head
  - disengage the support latch
  - lower the coupler head gently

5.4.6 When coupling or uncoupling fixed type couplers

- the instructions applicable to drophead Dellner couplers apply except that references to raising or lowering the couplers should be disregarded

5.5 INSTRUCTIONS TO SHUNTERS - CONVENTIONAL COUPLINGS

5.5.1 Instanter couplings

- these must be placed in the SHORT position before any train movement starts

5.5.2 Screw couplings

- these must be screwed up firmly so that the coupling is taut when the buffers touch
- an equal amount of screw must project through the nut at each end
- if the coupling is unequally screwed, you must equalise it before coupling
- where practicable, you must secure the shackle balls by using the small hook attached to the coupling D link after coupling
- you must place the coupling on the hook on the head stock when not in use
- the screw coupling must be used when next to a vehicle with instanter couplings

APPENDIX 6

NOT USED

Not Used

APPENDIX 7

LEVEL CROSSINGS

7.1 INSTRUCTIONS TO DRIVERS - CCTV CROSSINGS

7.1.1 If a satisfactory picture cannot be obtained

- the Signalman will tell you if an Attendant is not yet on duty at a crossing where a satisfactory CCTV picture cannot be obtained

7.1.2 What you must then do

- you must tell the Guard to proceed to the crossing and contact the Signalman from there
- this will enable the Signalman to ascertain from the Guard when the crossing is clear and the protecting signal may then be cleared

7.2 INSTRUCTIONS TO DRIVERS - AHB-D CROSSINGS

7.2.1 Approaching the crossing

- on approaching the Advance Warning Board (a diagonal black cross on a white background), you must regulate the speed of your train so that you will be able to stop short of the crossing
- do this unless you can see that the white light is flashing on the approach to the crossing

NOTE: this light indicates that the road traffic signals are operating on each side of the crossing

7.2.2 If the white light is flashing

- you may approach the crossing at line speed or at the special crossing speed where applicable (as shown on the speed restriction sign near the flashing white light)
- in the latter case, you may accelerate as soon as the front of your train passes over the (last) crossing to which the restriction applies

7.2 INSTRUCTIONS TO DRIVERS - AHB-D CROSSINGS

- where you will pass over the crossing immediately after starting from a station, you must sound the horn when starting

7.2.3 If the white light is not flashing

- you must stop your train short of the crossing and not then proceed until you have ensured that it is safe to do so or you are authorised to proceed by the Emergency Operator
- if not previously advised of the failure, you must inform the Signalman by the quickest means

7.3 INSTRUCTIONS TO GUARDS - CCTV CROSSINGS

7.3.1 If a satisfactory picture cannot be obtained

- if an Attendant is not yet on duty at a crossing where the Signalman cannot obtain a satisfactory CCTV picture, the Driver will require you to proceed to the crossing and contact the Signalman from there

7.3.2 What you must then do

- tell the Signalman when it is safe to lower the barriers
- confirm when the barriers are fully lowered (by the Signalman) and the crossing is clear
- rejoin your train

7.4 INSTRUCTIONS TO EMERGENCY OPERATORS - CCTV CROSSINGS

NOTE: you must be currently certificated as competent as an Emergency Operator

7.4.1 What you must do when required for duty

- make sure you understand when and where you are required to report for duty
- collect the necessary equipment beforehand from the supervising signal box or other designated place

7.4.2 What you must do on arrival at the crossing

- report your arrival to the Signalman
- give details of any apparent defect at the crossing
- remove any debris, etc, from the roadway
- ascertain from the Signalman whether:
  - local control is to be continuous
  - the barriers are to remain lowered and local control taken only when road traffic is to pass

7.4.3 When local control applies

- you must obtain the Signalman's permission before taking local control
- the Signalman will advise you of the approach of each train unless the line(s) is under Absolute Possession, in which case, you must remain alert for the approach of Engineer's trains
- you must lower the barriers in time to prevent delays to trains

7.4 INSTRUCTIONS TO EMERGENCY OPERATORS - CCTV CROSSINGS

- tell the Signalman when the barriers are fully lowered and the crossing is clear
- provided it is safe for the approaching train to pass over the crossing, you must exhibit a green handsignal to the Driver
- you must give this handsignal in a manner which will not cause confusion to road users
- if, however, an Engineer's train approaches on a line under Absolute Possession or the Signalman advises you of the approach of an unsignalled movement in the wrong direction, you may authorise the Driver to pass over the crossing when you are satisfied it is safe to do so
- in all circumstances, you must tell the Signalman when a train has passed over the crossing and obtain the Signalman's permission to raise the barriers
- you must arrange for a red flag by day or red light by night or in poor visibility to be exhibited on the ground at the crossing facing approaching trains whenever the crossing is open to road traffic
- if the road traffic signals are defective, you must place the emergency flashing red lights in the roadway before lowering the barriers and remove them when the barriers are fully raised

7.4.4 When you are required to be on duty but local control does not apply

- you must remain at the crossing and the barriers must remain lowered
- trains will be signalled normally over the crossing

7.4 INSTRUCTIONS TO EMERGENCY OPERATORS - CCTV CROSSINGS

- you need take no action in respect of approaching trains except in the case of:
  - an unsignalled movement in the wrong direction, or
  - a movement in either direction on a line under Absolute Possession
- in these circumstances, you must authorise the Driver to pass over the crossing when you are satisfied it is safe to do so
- you must tell the Signalman when road users wish to pass over the crossing
- you must not then take local control until you have obtained the Signalman's permission
- after the road users have passed clear, you must lower the barriers and tell the Signalman when you have given up local control again
- you must remain at the crossing

7.4.5 What you must do if relieved

- tell the Signalman
- hand over the equipment to your relief
- explain to your relief which method of working applies (as described in clause 7.4.2)

7.4.6 What you must do when normal working is to resume

- the Signalman will tell you when normal working is to resume and, if local control applies, when it is no longer required

7.4 INSTRUCTIONS TO EMERGENCY OPERATORS - CCTV CROSSINGS

- you must ensure that the apparatus is reset for normal working and obtain the Signalman's permission to leave the crossing
- make sure that the crossing equipment is correctly secured and locked
- return the equipment mentioned in the clause 7.4.1 to the supervising signal box or other designated place
- sign the Train Register in this respect when the equipment is returned to a signal box

7.5 INSTRUCTIONS TO EMERGENCY OPERATORS - AHB OR AHB-D CROSSINGS

NOTE: you must be currently certificated as competent as an Emergency Operator

7.5.1 What you must do when required for duty

- observe the instructions in clause 7.4.1

7.5.2 What you must do on arrival at the crossing

- report your arrival to the Signalman
- give details of any apparent defect at the crossing
- remove any debris, etc, from the roadway
- obtain the Signalman's permission to take local control

7.5 INSTRUCTIONS TO EMERGENCY OPERATORS - AHB OR AHB-D CROSSINGS

7.5.3 What you must do on taking local control

- you must ascertain whether:
  - the barriers respond correctly to the LOWER and RAISE controls
  - the road traffic signals function correctly
- provided the barriers are raised and there is no obvious defect you must:
  - make sure there is no road traffic in the vicinity
  - operate the LOWER control
  - check that the barriers lower correctly and the road traffic signals are functioning
  - operate the RAISE control
  - check that barriers raise fully
- beware that in some failure conditions, the barriers will fall instantly the LOWER control is operated
- if the barriers operate correctly, you may continue to use the LOWER and RAISE controls while local control applies
- if the barriers do not respond correctly, you must lower and raise them by means of the pump handle
- if the road traffic signals are defective, you must place the emergency flashing red lights in the roadway before lowering the barriers and remove them when the barriers are fully raised

7.5 INSTRUCTIONS TO EMERGENCY OPERATORS - AHB OR AHB-D CROSSINGS

7.5.4 What you must do when local control applies

- the Signalman will advise you of the approach of each train, unless the line(s) is under Absolute Possession, in which case you must remain alert for the approach of Engineer's trains
- you must lower the barriers as described above in time to prevent delays to trains
- provided it is safe for the approaching train to pass over the crossing, you must exhibit a green handsignal to the Driver
- you must give this handsignal in a manner which will not cause confusion to road users
- you must raise the barriers as soon as the train has passed clear of the crossing unless you have been advised of the approach of a train on another line
- you must arrange for a red flag by day or red light by night or in poor visibility to be exhibited on the ground at the crossing facing approaching trains whenever the crossing is open to road traffic
- if relieved, you must tell the Signalman and hand over the equipment to your relief

7.5.5 What you must do if it is not possible to communicate with the Signalman

- you must find an alternative means of communication to obtain permission to take local control
- after taking local control, you must remain alert for the approach of trains in order to minimise delay
- when a train approaches, you must lower the barriers as described in the preceding paragraphs

7.5 INSTRUCTIONS TO EMERGENCY OPERATORS - AHB OR AHB-D CROSSINGS

7.5.6 What you must do when local control is no longer required

- the Signalman will tell you (or arrange for you to be told) when local control is no longer required
- you must then:
  - check that the barriers respond correctly to the RAISE and LOWER controls
  - while the barriers are lowered, operate the control to AUTOMATIC and check that the barriers then raise
- tell the Signalman when automatic working is restored and obtain the Signalman's permission to leave the crossing
- make sure the crossing equipment is correctly secured and locked
- return the equipment mentioned in clause 7.4.1 to the supervising signal box or other designated place
- sign the Train Register entry in this respect when the equipment is returned to a signal box

7.6 INSTRUCTIONS TO ATTENDANTS AT CCTV CROSSINGS

7.6.1 What you must do on arrival at the crossing

- report your arrival to the Signalman

7.6.2 What you must do when at the crossing

- the Signalman will tell you on each occasion when barriers are about to be lowered

7.6 INSTRUCTIONS TO ATTENDANTS AT CCTV CROSSINGS

- you must then stay in constant contact with the Signalman until the barriers are fully lowered

- when they are fully lowered you must:

  - check that the crossing is clear and it is safe for trains to pass over the crossing

  - if so, tell the Signalman, giving the name of the crossing and using the words CROSSING CLEAR

- if it is necessary to stop the barriers when lowering, you must immediately tell the Signalman using the words STOP BARRIERS

- if asked to do so by the Signalman, you must say when the train has passed clear of the crossing

7.6.3 When you may leave the crossing

- you must not leave the crossing until relieved or authorised to leave by the Signalman

Not Used

APPENDIX 8

NOT USED

Not Used

APPENDIX 9

OPERATIONS CONTROL

9.1 INSTRUCTIONS TO OPERATIONS CONTROL - EMERGENCIES

9.1.1 Stopping or cautioning trains in an emergency

- this instruction applies if:
  - an accident, incident or irregularity occurs which may endanger trains, or
  - an incident occurs on the line or lineside where danger may arise from the approach of trains
- if there is any possibility that the Signalman is unaware of the circumstances (or for any reason is unable to take the necessary action), you must immediately use the train-radio to warn the Driver of any train(s) which may be affected
- according to the circumstances, you must send a message to a specified train(s) or to any train(s) at or approaching a specified location
- use the expression THIS IS AN EMERGENCY CALL as shown in Rule Book, Section A
- you must tell the Driver(s) to:
  - stop immediately or at a specified location and wait for further instructions, or
  - approach cautiously a specified location and then not proceed unless satisfied it is safe to do so
- if a train is stopped as shown in this instruction, the authority to restart must be given to the Driver by the Signalman; you must pass forward any information enabling this to be done
- if unable to contact the Driver(s) concerned immediately, you must repeat the emergency call continuously

9.1 INSTRUCTIONS TO OPERATIONS CONTROL - EMERGENCIES

- if assistance is readily available, you must arrange for contact to be attempted simultaneously with any other person who may be able to warn the Driver(s) - for example, the Guard(s) or persons on the lineside

9.1.2 Emergencies when the line is closed

- if an emergency as described in clause 9.1.1 occurs when the line is closed, you must ensure the Signalman is advised of the circumstances as soon as the signal box reopens (unless the circumstances no longer apply)

- this is in addition to any action you need to take in the interim to deal with the emergency

9.1.3 Receiving information from the public

- make sure you reach a clear understanding as to what has happened and exactly where it has happened

- remember that the caller may be:

  - unfamiliar with railway terminology

  - unskilled in communicating in an emergency

  - unaware of the full potential hazard to trains of the emergency which has arisen

- you must take the lead in ensuring that the necessary information is obtained to enable the emergency to be handled effectively

9.2 INSTRUCTIONS TO OPERATIONS CONTROL - DEFECTS AND IRREGULARITIES

9.2.1 Defects, irregularities or damage affecting safety equipment on traction units or vehicles

- if informed of any defect, irregularity or damage affecting safety related equipment on a traction unit or vehicle, you must:

  - arrange for it be be taken out of service, as shown in clause 9.2.2 or 9.2.3, or

  - arrange for the attendance of the Maintenance staff at the first suitable place

- you must also ensure that the Maintenance Shift Engineer is advised of the circumstances

- if a TPWS failure or WRONGSIDE AWS failure occurs, you must arrange for the traction unit concerned to be taken out of service immediately or as soon as possible as shown in clause 9.2.2

- do this unless advised by the Signalman of successive and similar failures at the same signal (or speed restriction) indicating that only the track equipment is defective

- if informed that the TPWS or AWS equipment has been isolated, you must:

  - arrange for the traction unit to be taken out of service as shown in clause 9.2.2

  - until this can be done, arrange for the Driver to be accompanied (on TPWS/AWS fitted portions of line) by a competent person to assist with verifying signal aspects

- if a RIGHTSIDE AWS failure occurs, the train may continue in service but you must advise the Maintenance staff

9.2 INSTRUCTIONS TO OPERATIONS CONTROL - DEFECTS AND IRREGULARITIES

NOTES: (a) the Signalman is required to advise you and the Signal Technician of any TPWS or AWS failure

(b) the Driver is required to advise you if it is necessary to isolate the AWS

9.2.2 When traction units or vehicles must be taken out of service immediately or as soon as possible

- a traction unit or vehicle must be taken out of service "immediately, or as soon as possible" as follows:

  - **in accordance with Rule Book, Section H**

    * failure of D.S.D.
    * failure of speedometer
    * complete failure of horn
    * failure of headlights, unless a Portable Headlight Unit is provided (See Appendix 2)
    * failure of TCA on first or last vehicle

  - **in accordance with Appendix 2**

    * defective train-radio
    * train with defective or isolated brakes
    * defective windscreen wipers or damaged windscreen impairing forward vision
    * defective sanding equipment when low adhesion conditions apply
    * vehicle with hot axle box

  - **in accordance with Appendix 3**

    * TPWS failure
    * wrongside AWS failure
    * isolation of AWS

9.2 INSTRUCTIONS TO OPERATIONS CONTROL - DEFECTS AND IRREGULARITIES

- you must arrange for the traction unit or vehicle(s) concerned to be taken out of service at the first suitable place where:

  - passengers can be detrained and there is either suitable accommodation or alternative services, and/or

  - it can be held to await the arrival of the Maintenance staff, and/or

  - it can be shunted clear of the running line

- if the defect or damage affects one driving cab only, you may:

  - arrange for another traction unit to be attached at that end, in which case the train may then be taken out of service as shown in clause 9.2.3, or

  - allow the train to make another journey where the defective driving cab is trailing, if that enables it to proceed to a more suitable place to be taken out of service

- after being taken out of service, the train must not re-enter service unless the defect or damage is remedied or it is necessary to be worked specially to York Road Depot for repairs

- you must also arrange for the traction unit or train concerned to be taken out of service FOR EXAMINATION immediately or as soon as possible and advise the Maintenance Shift Engineer if any of the following occurs:

  - a person is struck by a train

  - a signal is passed at Danger, or a platform overrun occurs, unless braking performance is clearly not relevant

  - an alleged brake defect

9.2 INSTRUCTIONS TO OPERATIONS CONTROL - DEFECTS AND IRREGULARITIES

- if a TPWS failure occurs, the train must be taken out of passenger service on arrival at Belfast Central or Great Victoria Street, but it may enter service elsewhere (except at York Road Depot) for the purpose of working in passenger service to Belfast; if necessary, you must arrange for the Driver to be accompanied as shown in clause 9.2.4

- if a TPWS intervention occurs, you must immediately inform the Operating Officer who will decide what arrangements are necessary to enable the train to proceed

9.2.3 When traction units or vehicles must be taken out of service as soon as possible, without causing cancellation or delay

- a traction unit or vehicle must be taken out of service “as soon as possible, without causing cancellation or delay” as follows:

  - **in accordance with Rule Book, Section H**

    * partial failure of horn
    * failure of marker lights
    * failure of TCA on intermediate vehicle

  - **in accordance with Appendix 2**

    * defective windscreen wipers or damaged windscreen NOT impairing forward vision
    * defective sanding equipment NOT affecting braking performance
    * defective DRA
    * defective power operated doors
    * defective door closing warning device
    * defective central door locking

    * defective train lighting or heating
    * broken large bodyside windows (excluding outer pane only of double glazed windows)

9.2 INSTRUCTIONS TO OPERATIONS CONTROL - DEFECTS AND IRREGULARITIES

- **in accordance with Appendix 4**

  * inoperative EP system on 80 class DEMU

- whenever possible, the working must be rearranged to ensure that defective vehicles are worked to a suitable place where Maintenance staff are available or can be provided

- this must normally be achieved by the end of the day on which the defect occurred, or by the end of the following day if it is necessary for the vehicle to be worked to York Road Depot

9.2.4 When a Driver is to be accompanied

- you must ensure that the Driver is accompanied in accordance with the Rules in connection with a failure of the DSD on any line, or TPWS, AWS or CAWS on any line fitted with those systems

9.2.5 Vehicles with locked wheels

- if a serious wheel flat occurs (as shown in Appendix 2), you must arrange for the vehicle to be examined by the Maintenance Staff before any further movement is made

- you must also advise the Civil Engineer of the circumstances and ascertain whether the rail-head is to be examined on the portion of line over which the defective vehicle has travelled

- if so, you must request each Signalman to instruct Drivers that speed must not exceed 20 mph over the affected portion of line

- you must also advise each Signalman concerned when normal working may be resumed

9.2 INSTRUCTIONS TO OPERATIONS CONTROL - DEFECTS AND IRREGULARITIES

9.2.6 Operation of the train-radio system

- this system may play a vital role if an emergency occurs
- Drivers are required to test the system and keep it switched on as shown in Appendix 1
- if you suspect that the system has failed on a traction unit or is not in use in the proper manner, you must immediately arrange for the train to be stopped, if necessary by arranging for the Signalman to place or maintain signals at Danger

9.3 INSTRUCTIONS TO OPERATIONS CONTROL - BAD WEATHER

9.3.1 Flooding of the line

- the Driver is required to report flooding of the line to the Signalman who is required to inform you
- you must immediately inform the Civil Engineering staff who will arrange for staff to attend to ascertain the height of water above rail level and whether the track, etc, is damaged
- the Signalman is required to consider flooding as an obstruction of the line until advised that the passage of trains (at normal or reduced speed) may be resumed
- you must ensure that any information received from an authorised member of the Civil Engineering staff is passed promptly to the Signalman so that the passage of trains may be resumed without delay
- as a general guide, the following restrictions are likely to apply:

CONDITIONS	RESTRICTIONS
Flooding more than 75mm (3 inches) above rail level OR any risk of damage to track or formation (irrespective of depth of floods)	No movement allowed
Flooding above rail level but not more than 75mm (3 inches)	Movements at walking pace
Flooding not above rail level	Normal working

- if it appears that any train conveying vehicles with roller bearings has passed through floods where the water level is above the bottom of the axle boxes (or where stabled vehicles may similarly have been affected), you must arrange for the Maintenance staff to be informed

9.3 INSTRUCTIONS TO OPERATIONS CONTROL - BAD WEATHER

- if necessary, you must liaise with the Maintenance staff to ensure that the affected vehicles are examined as soon as practicable

9.3.2 Snowfall

- if advised of a Snow Warning, you must inform Supervisors, Civil Engineer's staff and Signalmen as shown in the current SNOW DUTY INSTRUCTIONS

9.4 INSTRUCTIONS TO OPERATIONS CONTROL - LEVEL CROSSINGS

9.4.1 Lisahally level crossing

- if it is necessary for this gated accommodation crossing to be used in emergency when Londonderry signal box is closed, you must:

  - check that the signal box is closed and the line is not under Absolute Possession

  - advise the Senior Manager at Lisahally that the crossing may be used

  - tell that person to inform you as soon as the crossing is again clear and the gates are closed and secured

  - record the times of all messages sent or received in connection with this arrangement

- if the signal box reopens while the crossing is in use, you must immediately inform the Signalman

9.4 INSTRUCTIONS TO OPERATIONS CONTROL - LEVEL CROSSINGS

9.4.2 Kinnegar level crossing

- the above instruction applies in the same manner at this crossing when Belfast Central signal cabin is closed

- references to the Senior Manager at Lisahally apply to the MOD person in charge at Kinnegar and references to Londonderry signal box apply to Belfast Central signal cabin

APPENDIX 10

TRACTION AND ROLLING STOCK

10.1 LOCOMOTIVES

10.1.1 111 Class

- Nos 111-113
- General Motors Diesel-electric
- WEIGHT: 99 tons
- LENGTH: 17.37m (57 feet 0 inches)
- BRAKES: UIC 2-pipe AIR and VACUUM
- MAX SPEED: 90 mph

10.1.2 201 Class

- Nos 201 - 234 (208 & 209 NIR; others IR)
- General Motors Diesel-electric
- WEIGHT: 112 tons
- LENGTH: 20.95m (68 feet 9 inches)
- BRAKES: UIC 2-pipe AIR and VACUUM
- MAX SPEED: 90 mph
- COUPLERS: drophead Dellner on NIR locos and certain IR locos

10.2 DIESEL MULTIPLE UNITS

10.2.1 80 Class

• POWER CAR	8069, 8082, 8083, 8089, 8090, 8092 - 8094, 8097, 8098
• DRIVING TRAILER	8733, 8736, 8738, 8742, 8743, 8747, 8749, 8752 - 8754
• INTERMEDIATE TRAILER	8766, 8780
• WEIGHT:	Power Car - 62 tons Others - 28 tons (except 8753/54/80 which weigh 32 tons)
• LENGTH:	Driving Trailer - 20.28m (65 feet 8 inches) Others - 20.38m (66 feet 0 inches)
• BRAKES:	NIR 3-pipe AIR
• MAX SPEED:	70 mph
• COUPLERS:	driving ends - drophead buck-eye elsewhere - fixed buck-eye
• HEATING:	electric
• DOORS:	slam

10.2 DIESEL MULTIPLE UNITS

10.2.2 450 Class

- POWER CAR 8451 - 8459
- INTERMEDIATE TRAILER 8791 - 8799
- DRIVING TRAILER 8781 - 8789
- WEIGHT: Power Car - 62 tons
Others - 28 tons
- LENGTH: Driving Trailer - 20.38m (66 feet 0 inches)
Others - 20.28m (65 feet 8 inches)
- BRAKES: UIC 2-pipe AIR
- MAX SPEED 70 mph
- COUPLERS: driving ends - Tightlock
elsewhere - BR standard bar
- HEATING: P/V and electric
- DOORS: power operated; released by the Driver and closed by the Guard

10.2 DIESEL MULTIPLE UNITS

10.2.3 3000 Class

- POWER CAR 1 (disabled toilet) 3301 - 3323
- POWER CAR 2 3401 - 3423
- INTERMEDIATE POWER CAR 3501 - 3523
- WEIGHT: Power Car 1 - 69.8 tonnes
Power Car 2 - 69.5 tonnes
Intermediate - 62.1 tonnes
- LENGTH: Power Car 1 & 2 - 23.74m
Intermediate - 23.14m
- BRAKES: Air
- MAX SPEED: 90 mph
- COUPLERS: Scharfenburg
- HEATING: electric/air-conditioning
- DOORS: power operated; released by the Driver and closed by the Guard

10.3 LOCOMOTIVE HAULED COACHING STOCK

10.3.1 Enterprise stock

- Driving First 9001 - 9004
- First 9101 - 9104
- Standard 9201 - 9216
- Catering 9401 - 9404
- WEIGHT: Driving First - 42 tons
Catering - 40 tons
Others - 38 tons
- LENGTH: 23.43 m (76 feet 2 inches)
- BRAKES: UIC 2-pipe AIR
- MAX SPEED: 90 mph
- COUPLERS: fixed Dellner (drophead Dellner on driving ends)
- HEATING: electric/air-conditioning
- DOORS: power operated: released and closed by the Driver

10.3 LOCOMOTIVE HAULED COACHING STOCK

10.3.2 Mark 2F stock

- Standard 8941 - 8948
- WEIGHT: 32 tons
- LENGTH: 20 m (64 feet 10 inches)
- BRAKES: UIC 2-pipe AIR
- MAX SPEED: 75 mph
- COUPLERS: coupled in pairs by solid bar couplers with drophead buck-eye couplers at outer ends
- HEATING: electric/air-conditioning
- DOORS: slam - with central locking operated by the Guard

10.3.3 Generator vans

- Generator 8911 & 8912
- WEIGHT: 36 tons
- LENGTH: 20.65 m (67 feet 9 inches)
- BRAKES: UIC 2-pipe AIR
- COUPLERS: drophead buck-eye

10.4 INSTRUCTIONS CONCERNING TRACTION AND ROLLING STOCK

10.4.1 Train assistance procedures for traincrew

- ISSUED BY: Railway Services Manager
- LATEST REVISION: March 2001
- APPLIES TO: Drivers & Guards
- CONCERNS: Assistance of failed trains

10.4.2 Train driving best practice and defensive driving policy

- ISSUED BY: Railway Services Manager
- LATEST REVISION: October 2000
- APPLIES TO: Drivers
- CONCERNS: Defensive Driving
  General guidance on Drivers' duties

10.4.3 RPSI trains (Operating Instruction for RPSI trains)

- ISSUED BY: Railway Operations Manager
- LATEST REVISION: May 2004
- APPLIES TO: Drivers and Guards working RPSI trains and Supervisor in Charge
- CONCERNS: Safe operation of steam trains

10.4 INSTRUCTIONS CONCERNING TRACTION AND ROLLING STOCK

10.4.4 Conductor/Driver communication system on cross border services

- ISSUED BY: General Manager (O&S)
- LATEST REVISION: 16th June 1993
- APPLIES TO: Drivers & Guards
- CONCERNS: CDC System

10.4.5 Standards of service handbook (Enterprise)

- ISSUED BY: Enterprise Manager (jointly with IR)
- LATEST REVISION: March 2003
- APPLIES TO: Guards and other on-board staff working Enterprise trains
- CONCERNS: Customer care and emergency duties

Not Used

APPENDIX 11

LOCAL INSTRUCTIONS

11.1 LOCAL INSTRUCTIONS - BANGOR & DUBLIN (CONNOLLY STATION)

11.1.1 Central Station - barrow crossing

Instructions to Persons in Charge of platform

- you must ensure that trucks are taken over this crossing only by authorised persons and in accordance with the instructions laid down locally

Instructions to crossing users on foot

- you may use this crossing only when necessary in connection with your railway duties
- you must cross quickly after first checking that the white light is illuminated and it is safe to cross

11.1.2 Great Victoria Street Station - Running round movements

Instructions to Guards and Shunters

- you must ensure that passengers are not allowed to remain in any train which is to be propelled from the platform for the purpose of being run round

11.1.3 Electrified Lines

Instructions to Drivers and Guards

- the running lines and certain associated lines and sidings are electrified between Malahide and Dublin (Connolly Station)
- these lines are electrified at 1,500 volts d.c.
- you must observe the instructions in Rule Book, Section Z

11.2 LOCAL INSTRUCTIONS - LARNE HARBOUR & LAGAN JUNCTION

11.2.1 York Road Depot

NOTE: reference to York Road Depot in any instruction concerning trains entering or being taken out of service or control of shunting movements includes Fortwilliam, unless otherwise specified

Control of movements - Instructions to Drivers, Guards and Shunters

- movements entering, leaving or within the depot are under the control of the Shunter
- the Shunter must observe the instructions shown in the Depot Protection Procedure for York Road Maintenance Depot, Workshops and Fuel Point

Trains entering service - Instructions to Drivers

- you must not take any train into service with defective equipment which may affect safety
- this includes:
  - automatic/parking brake
  - DSD/vigilance equipment
  - sanding equipment
  - speedometer
  - AWS/TPWS
  - train-radio

11.2 LOCAL INSTRUCTIONS - LARNE HARBOUR & LAGAN JUNCTION

- public address system
- horn
- head/marker/tail lights
- wipers (driving positions)
- on-train data recorder
- power operated doors
- door interlocks
- door closing warning devices
- TCA
- DRA
- incomplete emergency equipment
- complete failure of lighting in any vehicle

- train preparation duties for 3000 class trains in Fortwilliam sidings are normally undertaken by the Maintenance staff
- the person preparing the train is required to complete, sign and date a written slip to this effect in respect of the unit(s) concerned
- before taking the train into service, you must check that a properly completed slip is posted in the leading cab of your train or, exceptionally, a duplicate copy is held by the Designated Person (Yard)
- if neither circumstance applies, you must undertake the necessary preparation duties before the train enters service

11.2 LOCAL INSTRUCTIONS - LARNE HARBOUR & LAGAN JUNCTION

11.2.2 Belfast cross-harbour viaduct (Dargan Bridge)

General Instructions

- there are limited clearances on this viaduct
- walking along this viaduct is prohibited except for the following persons:
  - anyone in possession of an authorisation certificate (to walk on the viaduct) issued by the Engineer
  - anyone accompanied by such a person
  - in a failure or emergency, Operating or Maintenance staff subject to the instructions below

Instructions to operating or maintenance staff involved in a failure or emergency

- you must not walk along the viaduct unless it is absolutely necessary in connection with a failure or emergency
- you must then use the walkway or area above the concrete duct covers on either side of the line
- if a train approaches, you must:
  - put any equipment you are carrying in a safe place on the ground
  - stand against the parapet handrails with your back to the track and hold on to the handrails until the train is clear
- if you are called to attend a failure or emergency (for example, to undertake handsignalling or point operating duties), you must arrange with the Signalman for the passage of trains to be stopped (unless this is already the case) to enable you to walk safely to or from your site of work

11.3 LOCAL INSTRUCTIONS - LONDONDERRY & BLEACH GREEN

11.3.1 Working of Single Lines by Pilotman (WSLP) between Coleraine and Castlerock

Instructions to the Pilotman concerning Bann Bridge

NOTE: the instructions in Rule Book, Section N, Part 2, apply except as shown below

- before WSLP starts, you must obtain the key to the cover of the electric lock on the bridge locking lever at Bann Bridge
- if the Bridgeman is not on duty, you must:
  - keep this key in your possession
  - accompany each train
  - authorise trains to pass over the bridge in the normal way
- if the Bridgeman is on duty when WSLP is to be introduced, you must:
  - dictate a Signalman's WSLP form to the Bridgeman and record the Bridgeman's name on your WSLP form
  - hand the key (referred to above) to the Bridgeman
  - understand that the Bridgeman is now responsible for authorising trains to pass over the bridge
  - accompany each train
  - instruct the Driver to stop short of the bridge and obtain the Bridgeman's permission to pass over the bridge
- you must also observe the above instruction if the Bridgeman takes duty during WSLP

11.3 LOCAL INSTRUCTIONS - LONDONDERRY & BLEACH GREEN

- when withdrawing WSLP, you must:
  - obtain an assurance from the Bridgeman (if on duty) that the bridge working lever is LOCKED, take possession of the key and tell the Bridgeman to cancel the WSLP form
  - hand the key to the Signalman at Coleraine

11.3.2 Securing of failed trains between Whiteabbey and Kingsmoss

Instructions to Drivers

- this instruction applies if your train fails between 4.50 milepost and 10.50 milepost which is mostly graded at 1 in 75
- you must immediately secure your train by:
  - application of all parking brakes
  - placing two scotches on the downhill side of the wheels
  - switching on the emergency compressor (if appropriate)

11.4 LOCAL INSTRUCTIONS - PORTRUSH & COLERAINE

11.4.1 Arrangements when Portrush signal box is switched out

- Portrush signal box is normally switched out during which time the following arrangements apply
- the line is worked as 'One Train Working'
- the tablet withdrawn for such working is the Driver's authority to enter the section at Coleraine, to proceed to University or Portrush and return therefrom
- this tablet must be given up when the train has arrived clear of the section at Coleraine but it must not be restored to the instrument
- the signals controlling the entrance to the No.1 platform line at Portrush and the exit therefrom normally remain in the clear position

NOTE: the signal box is not normally required for the purposes of the current Working Timetable; details of any special opening requirements are normally given in the Weekly Operating Notice or by special instruction

11.4.2 Down trains terminating at University

- authority is given for down passenger trains to return from University without going through the section to Portrush

11.5 LOCAL INSTRUCTIONS - ANTRIM & LISBURN

11.5.1 Use as diversionary route

- normal service on this line is suspended, but it remains open as a diversionary route

11.5.2 Method of working

- instructions concerning the method of working of this line are issued separately

Not Used