



NATIONAL RAILWAY MUSEUM Inc.

# **Safeworking Instructions and Procedures for the Port Adelaide 457mm Gauge Railway**

A supporting document of the National Railway Museum.  
*457mm Gauge Railway Safety Management Plan*

## **Contents:**

Page 2	Introduction
	Definitions
Page 3	Crew Responsibilities
Page 4	Operational Requirements
Page 5	Emergency Procedures
Page 6	Operational Safeworking
	Operational Speed Limits
Page 7	Trackside Knowledge
Page 9	Flag and Hand Signalling
Page 11	Locomotive Steam Whistle, and Horn Signals
Page 11	Level Crossings and Signalling Systems
Page 14	Diamond Crossing & Derail
Page 15	Special Movements & Shunting Operations
Page 16	Train Set Up
Page 17	Movement to Callington Station
Page 18	Passenger Operations
Page 20	End of Day Procedures
Appendix	Driver's Diagram

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Once printed it is no longer controlled*

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## ***Introduction***

***Purpose.*** This document is a supporting document to the National Railway Museum *457mm Gauge Railway Safety Management Plan* laying out the Instructions and Procedures to be followed in the operation of the 457mm Gauge Railway at the Museum.

***Definitions.*** The following definitions are used within this document:

### **NRM**

The National Railway Museum

### **457mm Gauge Railway SAFETY MANAGEMENT PLAN**

The safety plan that governs the operation of the NRM's 457mm Gauge Railways.

### **Museum.**

The National Railway Museum Site at 67 Lipson Street Port Adelaide.

### **Operations Manager (OM)**

Operations Manager of the National Railway Museum, or his delegate.

### **Operational Personnel / Operator**

NRM volunteers employed in the operation of the 457mm gauge railway at the museum.

### **Driver**

A volunteer authorised to carry out driving duties on the 457mm gauge railway at the museum.

### **Guard**

A volunteer authorised to carry out guard duties on the 457mm gauge railway at the museum.

### **Crew**

The driver and guard rostered to operate the train

## *Crew Responsibilities*

1. **Driver.** To meet SafeWork SA requirements, the driver has the sole responsibility for the day's operations.
2. **Guard.** The guard is responsible for:-
  - 2.1. The supervision of passenger operations.
  - 2.2. The control of shunting movements including the operation of points.
  - 2.3. The control of push pull and push back movements.
3. **Operational Fitness.** Drivers and guards are to ensure that they are both fit and capable to carry out the required duties on the day. They are not to carry out operational duties if they are under the influence of drugs or alcohol or suffering from fatigue or illness.
4. **Operational Authorisation.** Drivers and guards must be fully authorised and qualified to carry out the required duties in accordance with Section 6 of the NRM 457mm Gauge Railway Safety Management Plan. They are to carry their "Authority to Operate" card on them whilst on duty.
5. **Steam Operations.** Steam drivers are to be qualified in accordance with SafeWork SA requirements and are to carry their High Risk Work licence whilst on duty.
6. **Lost or Damaged Cards.** Lost or damaged authority cards and licences are to be reported to the Operations Manager so that action may be taken to replace them.
7. **Duty of Care.** All crew members have a common duty of care to ensure the safety of themselves and all other persons within the vicinity of operations. They are to carry out their duties in accordance with:
  - 7.1. Section 5 of the NRM *457mm Gauge Railway Safety Management Plan*.
  - 7.2. The operating manuals for the locomotive in use.
  - 7.3. The respective duty statement for the duties being carried out.
  - 7.4. Train Operational and Safety Notices issued by the Operations Manager
  - 7.5. The Instructions and procedures laid out in this document.
  - 7.6. NRM Safety Notices.
  - 7.7. General Notices.

8. **Training Authorisation.** This authority is demonstrated by the trainee holding a training “Authorised to Operate” card with the required codes on it. Training in the operation of the 457mm gauge railway can only be carried out with the authorisation from the Operations Manager or his delegate.
9. **Authorised Trainers.** Training is to be carried out by trainers that have been appointed by the Operations Manager. The Authorised Operators list highlights those operators authorised to conduct training and the qualification that they may train in.

## *Operational Requirements*

10. **Operational Safety.** Drivers and guards have a duty of care to ensure a high level of safety in operation of the locomotives and rolling stock of the 457mm Gauge Railway at the museum. Operations are to cease immediately if the safe operation of the railway is compromised. Operations are only to recommence when all safety issues have been resolved. If the drivers and guards cannot resolve the safety issue, the Operations Manager is to be contacted for directions on what action is to be taken. All safety issues are to be reported to the Operational Manager.
11. **Operational Awareness.** Drivers and guards have a duty of care to ensure that they are fully aware of all museum requirements, operations and other factors that may affect operations on the day. These can include but are not limited to:-
  - 11.1. 1067 & 1600 Gauge operations.
  - 11.2. Track work.
  - 11.3. Museum functions.
12. **Weather Conditions.** Drivers are to ensure that weather conditions on the day of operation will not affect the safe operations of the 457mm railway at the museum. The early morning forecast, issued at 7.00 am, from the Bureau of Meteorology on the day of operations is to be used to determine if operations can be undertaken. The forecast can be found on the following web address <http://www.bom.gov.au/sa/forecast/adelaide.shtml>. The following conditions are to be considered in making the decision:-
  - 12.1. Fire bans. No steam operations are to be carried out at the museum on days that a total fire ban has been issued for the Adelaide area.
  - 12.2. Inclement and wet weather conditions. Operations at the museum may be ceased if the weather conditions reach a level that comprises the safe and efficient operation of the train. The decision to cancel operations rest with the driver of the locomotive. The driver is to inform the museum Duty Manager of the decision.

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## *Emergency Procedures*

- 13. Incident Management and Emergency Procedures.** All personnel employed on 457 mm railway operations are to ensure that they fully understand their responsibilities in regards to the requirements and procedures laid out in Section 7 of NRM 457mm Gauge Railway Safety Management Plan.
- 14. Emergency Evacuation Plan.** All drivers and guards are to ensure they understand what action is required to evacuate the museum site. Copies of the emergency evacuation plan can be found in the foyer of the main office above the megaphone and in the bookshop.
- 15. Train Crew Actions.** If an evacuation is instigated whilst the train is in operation the following procedure is to be followed:-
  - 15.1. Train in Motion.** If it possible the train is to return to Callington station and stop. The driver and guard are to escort the passengers to museum carpark via gate 1.
  - 15.2. Train unable to return to Callington.** If the emergency situation prevents the train from returning to Callington the driver is to stop the train in a safe location and direct the passengers to a safe area and await further instructions from the safety warden or emergency personnel.
- 16. Goods Shed Fire Alarm.** To prevent a non-emergency operation of the Goods shed fire alarm no steam engine is to stop in the vicinity of the shed. If operational requirements or an emergency dictate that the locomotive must stop in this area, the blower is to be turned off and action taken to reduce the level of smoke released by the locomotive. Should the driver believe that the fire alarm is about to be, or has been activated, he is to immediately notify the Duty Manager to help prevent the callout of the fire service.
- 17. Track Infringements.** On approach to personnel and/or vehicles on or near the track the driver is to reduce speed to a low speed and sound the whistle or horn and be prepared to stop before reaching the area that the infringement is occurring. If it is safe to proceed, the speed through the infringement area is to be at low speed. If an infringement is severe enough to comprise safety, the driver is to cease operations until the matter can be resolved in a way that will ensure the safe operation of the railway.
- 18. Track Obstruction or fault.** If an obstruction or track fault is encountered the driver is to cease operations until the matter can be resolved in a way that will ensure the safe operation of the 457mm railway.

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- 19. Reporting of Emergencies.** The Operations Manager, or if he is not available the Duty Manager, is to be informed of all emergencies, track Infringements and track obstructions. The procedures laid out in the in Section 7 of NRM *457mm Gauge Railway Safety Management Plan* are to be followed. Minor Infringements, obstructions or track faults can be reported on Daily Running Sheet (NRM Form 457-2006-326).

### *Operational Safeworking.*

- 20. Operational Safeworking System.** The operational safeworking system adopted is “Single Train Occupancy”.

**20.1. Normal Operations.** Only one locomotive under power may operate on the main line, or north of the 1067mm diamond crossing on the Loco Branch.

**20.2. Double Heading Operations.** Two or more locomotives may be attached to the head of a train, but only with the specific permission of the Operation Manager or his delegate. Additional care is to be exercised by the drivers during the individual movement from the locomotive depot to the stabled consist.

**Note: Under NO circumstances may the first despatched loco move forward (with or without the train) until the second despatched loco has arrived at the consist and has been coupled.**

When the locos cut out of service separately, they may ‘follow on’ but both drivers must exercise due care and follow directions of any shunt director on arrival at the steamshed.

**20.3. Recovery operations.** Should it be necessary to use a second locomotive to recover a failed unit, once the action has commenced, the failed unit must not be moved under its own power (should partial or complete functionality unexpectedly returns).

### *Operational Speed Limits.*

- 21. Maximum Speed.** The maximum speed limit at the museum is 15km/h (or best estimate).
- 22. Low Speed.** The low speed limit at the museum is 5km/h (or best estimate). This speed may be best described as a walking pace. At low speed you are to be prepared to stop the locomotive in the shortest possible distance.

## Trackside Knowledge

**23. Track Layout.** Drivers and guards are to be aware of the layout of 457mm track at the museum. The Driver's Track Diagram can be found in the appendix to this document.

### 24. Trackside Infrastructure Definitions.

**24.1. Facing Point.** A set of points that can alter the direction of travel of an approaching rail movement.

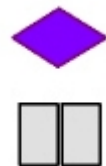
**24.2. Trailing Point.** A set of points at the convergence of two tracks which cannot alter the direction of travel of an approaching rail movement.

**24.3. Points Switchstand.** A vertical stand and lockable control lever to operate and display the status of the points. Targets are mounted at the top of the stand with a green arrow when visible to the approaching train indicating the points are set for the main line, and a yellow dumbbell (for a loop) or a red dumbbell (for a siding) indicates the points are set reverse.



**24.4. Derail.** A device which can set across a rail to protect 'main line' movements by deliberately derailing any errant vehicle movement.

**24.5. Derail Switchstand.** A vertical stand and lockable control lever to operate and display the status of the derail. A purple diamond shaped target indicates that the derail is in position on the rail, whilst a white square indicates that the derail is off and movement may proceed. The key for this device is located in the cab of the 1067mm steam locomotive Peronne



**25. Permanent Lineside Boards.** Drivers and grivers are to be aware and understand the meanings of permanent line side boards

#### Whistle



Square White board with the text - W mounted on the side of the track (either side).

Meaning: Sound whistle / horn

#### Speed Limit



Square White board with a number e.g.- 10 mounted on the side of the track (either side).

Meaning: Proceed at a maximum speed as indicated

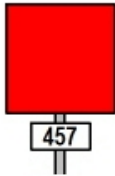
**26. Temporary Line Side Boards.** Drivers and guards are to be aware and understand the meanings of temporary line side boards.



**Stop - Do not proceed**

Horizontal rectangular red board mounted in the centre of the track

Meaning: Track is not passable beyond this point and movement is prohibited past the board

**Stop - Proceed under instruction**

Square red board mounted on the side of the track (either side).

Meaning: Track work in progress. Stop and await direction from the leader of the work gang.

**Reduce Speed**

Square YELLOW board with black stripe mounted on the side of the track (either side).

Meaning: State of the track requires transit across the next section at slow speed.

**Work Gang**

Square White board with the text - GANG W mounted on the side of the track (either side).

Meaning: A work gang is present - follow the protocol for approaching a work gang

**Resume Normal Speed**

Square White board with the number - 15 mounted on the side of the track (either side).

Meaning: Resume track speed (Maximum 15kph)

Other situation specific permanent lineside boards are detailed on the driver's Diagram (ref the appendix to this document)

- 27. Track Gangs.** The following procedures are to be followed on approach and passing an area of track work:-
- 27.1. Approach.** On approach to a track gang the driver is to reduce speed to a low speed and sound the whistle or horn and be prepared to stop before reaching the work area unless given a right of way signal from the track gang supervisor.
- 27.2. Right of way.** On receipt of right of way the driver is to proceed through the work area at low speed until the end of the consist has cleared the work area before resuming normal speed.



- 28. Setting of Points and Switchstands.** Points, with or without switchstands, **are not trailable** and must be correctly set for movement in both the facing and trailing directions.

The following responsibilities are to be observed in regards to the setting of points and switchstands:-

- 28.1. Guard's Procedure.** The guard is to set the points as required and then ensure that they are correctly set and locked before giving a right of way signal to the driver.
- 28.2. Driver's Procedure.** The driver is to ensure that the points are correctly set and the road ahead is clear before moving the locomotive or train through the point.
- 29. Operation of Switch Stands.** The padlock is to be unlocked and removed from the locking lever. The lever shall then be raised and moved to the required position and pushed down to lock it into position. No movement through the point is to be allowed until it has been checked to ensure that it is correctly set and the locking lever secured. On completion of movement the padlock is to be replaced and locked.
- 30. Switchstand Padlocks.** If a switch stand padlock is damaged or missing the Operations Manager is to be immediately notified to arrange for a replacement lock.
- 31. Removable Track Sections.** Drivers and guards are to be aware of the location of the 457mm gauge removable track sections and the procedures to be followed when they have been removed. These track sections are located at the southern end of the museum near the gates and can be removed to allow 1600mm, 1435mm and 1067mm gauge movements through the 457mm gauge track. Stop boards are to be placed across the 457mm gauge track at Kanni and the southern end of Dulux straight before any track sections are removed. The boards are to remain in place until track sections have been replaced and bolted into place.

## *Flag and Hand Signalling*

- 32. Flag Signals.** The following flag signals are to be used:-
- 32.1. Guard's First Right of Way.** A green flag is to be displayed, or an arm held horizontally, with one blast from the guard's whistle is to be given to indicate Right of Way. The guard is to ensure that he has a clear line of sight to the driver before giving the signal. This signal can be given from the platform.
- 32.2. Guard's Second Right of way.** A green flag is to be displayed or an arm held horizontally, is to be given to indicate the second right of way. The guard is to be on the train when giving the signal.
- 32.3. Guard's Emergency Stop Signal.** A continuous blast the guard's whistle and display of a red flag or two arms held up vertically is to be used to signal the requirement for an emergency stop of the train.

### 33. Hand Signals. The following hand signals are to be used:-

#### Stop



Both arms raised outwards above the head

Meaning: Stop the train or shunt movement

#### Move towards



One arm waved slowly from side to side across the body below shoulder height

Meaning: Driver to move towards the participant.

#### Move Towards Slowly



One arm held steadily at 45 deg above the shoulder and the other arm waved slowly from side to side across the body below shoulder height

Meaning: Driver to move towards the participant slowly.

#### Move Away



One arm waved outwardly from the body in a circular motion below shoulder height

Meaning: Driver to move away from the participant.

#### Move away slowly



One arm held steadily at 45 deg above the shoulder and the other arm waved outwardly from the body in a circular motion below shoulder height

Meaning: Driver to move away from the participant slowly

#### Ease Up, Couple Up



Both arms raised above the head, brought together, and returned to the side of the body

Meaning: Driver is to couple up, or to exert pressure to assist coupling or uncoupling

#### Reduce Speed



One arm held in a horizontal position and moved up and down

Meaning: Driver is to reduce the speed of the movement

#### Clear to proceed, Right Away



One arm held in a horizontal position

Meaning: Track ahead is clear, or Train is clear to depart.

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## *Locomotive Steam Whistle and Horn Signals*

- 34. One Blast.** One blast of the whistle or horn is to be used :-
- 34.1.** To acknowledge right of way signals from the driver or track workers.
  - 34.2.** To warn that the locomotive is about to commence a forward movement.
  - 34.3.** To warn track workers and other personnel in the vicinity of the track of the trains approach.
  - 34.4.** To warn of the trains approach to blind corners i.e. the track corners at the southern end of Dulux straight and Kanni.
  - 34.5.** Where required by a whistle board.
- 35. Long Short Long.** A combination of one long, one short and one long blast (referred to as a long short long) is to be used on approach to level crossings.
- 36. Three Blasts.** Three blast of the whistle or horn is to be used to warn of a commencement of a reverse movement.

## *Level Crossings*

- 37. Level Crossings Awareness.** The following procedures are to be followed whilst passing through level crossings. All drivers and guards are to make themselves aware of the location and operation of the level crossings and their respective signalling systems. This includes the location and operation of the signalling systems bypass switches.
- 38. Level Crossing Speed Restrictions.** All crossings are to be approached at a low speed that will enable the train to stop in the shortest possible distance in an emergency.
- 39. Locomotive warning Signal.** On approach to a crossing the driver is to give the required signal on the locomotive's horn or whistle. Refer to Paragraph 35.
- 40. Crossing Keepers.** On days that the level crossings are manned by crossing keepers, drivers are to observe directions given by the crossing keepers. If a red flag is shown the driver is to stop before the crossing and await further direction from the crossing keeper.
- 41. Signalling Systems.** All three level crossings have active protection, and all have supporting signalling to display the correct operation to the driver. If the driver faces a red signal (or a signal that is not illuminated) they must STOP at the crossing and sound the horn/whistle before proceeding.

- 41.1. PASS System.** The Bookshop and Steam Shed level crossings have Protection Activation Support Systems (PASS) supporting the conventional track circuitry. This system is a “point of pass” system which counts elements (the magnets under the nose of the loco and the magnet connected to the skinny guard) that enter a track section and again when the elements leave the section, as a means of determining the train’s presence.
- 41.1.1. Auto Reset Function.** The PASS systems have an auto reset function after 90 seconds (Bookshop) and 120 seconds (Steam Shed).
- 41.1.2. PASS System Faults.** If it is perceived that the lights and bell/s are continuing to operate (in excess of 90 seconds) or the crossing bells do not operate as anticipated, then:-
- 41.1.2.1.** Go to the control box and check the indicator lights on the face of the box. If either (or both) light is illuminated with the train clear of the area, press the red stop button on the outside face of the box (northern face of the Bookshop crossing, or the eastern side of the Steam Shed). This will completely reset the electronics.
- 41.1.2.2.** If the lights and bell then continue, this will represent a failure of the original track circuit equipment. In this event, advise the Operations Manager who will then instruct you on what to do.
- 41.2. Extended Track Circuit Occupancy - Book Shop Crossing.** If locos impinge on the track circuit at Callington in the anti-clockwise direction whilst loading, the “Bells Off” switch may be operated to prevent extended ringing. The switch **must be restored** to “On” before departing.
- 41.3. Overnight Stabling - Steam Shed.** If the “457mm Bells Isolation” switch is switched “Off” at the Steam Shed crossing when a consist is parked on the track circuit overnight, it must be restored to “On” in the morning before departing the area.
- 41.4. Signal Indications**
- 41.4.1. Approaching any signal showing Red.** The driver is to stop short of the crossing and check that it is safe to pass though the crossing. If clear and safe to do so the driver may cross the crossing at low speed after sounding the locomotive whistle or horn.

#### 41.4.2. Jackett's Crossing. Signal 421 at Red.

**Note: Signal 421 is an Absolute signal, and must not be passed at Stop.**

The driver is to stop short of the **signal** and wait for the crossing keeper or the guard to physically inspect the crossing. If safe the driver may proceed under hand signal from the crossing keeper or guard. If no guard or crossing keeper is present the driver is to physically inspect the crossing and ensure that it is safe to proceed. If safe, the driver may pass the signal at low speed.

#### 41.4.3. Signal Displays

JACKETTS CROSSING Signal 421 Anti-clockwise movement	STOP Proceed only in accordance with clause 41.4.2	PROCEED with CAUTION	
JACKETTS CROSSING Signal 424 Clockwise movement	STOP Sound horn, and proceed with care.	PROCEED with CAUTION Next signal (422) may be at STOP	PROCEED
JACKETTS CROSSING Signal 422 Clockwise movement	STOP Sound horn, and proceed with care.		PROCEED
BOOKSHOP CROSSING Signal 403 Anti-clockwise movement and Signal 404 Clockwise movement	STOP Sound horn, and proceed with care.	PROCEED with CAUTION	
STEAM SHED CROSSING Signal 415 Anti-clockwise movement	STOP Sound horn, and proceed with care.		PROCEED
STEAM SHED CROSSING Signal 416 Clockwise movement	STOP Sound horn, and proceed with care.	(Flashing Yellow) Trains Reversing (in Push Pull mode) from Dulux Straight South may DEPART	PROCEED

**41.5. Signal faults.** If the signals are not working as required or not displaying any indication they are to be treated as a Red signal. The Operations Manager is to be notified of the failure.

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## *Diamond Crossing & Derail*

**42. 457/1067mm Diamond Crossing and Derail.** This crossover is located by the steam shed and is installed to allow both 457mm and 1067mm movements through it.

**42.1. Track Filler Pieces.** For 457mm gauge movements the crossing is fitted with removable track filler pieces. These must be in place for 457mm movement and removed for 1067mm movements.

**42.2. Derailer.** To protect the crossover a derail has been installed that can be placed on either the 457mm or 1067mm track. The operation of the 1067mm and 457mm gauge derail follows the same procedure as a switch stand as laid out in paragraph 29 of this document.

**42.3. Procedures for set up of the Diamond Crossing.** The following procedures are to be followed in regards to the operation of the derail and the removal and replacement of the track filler pieces.

**42.3.1. 457mm Operations.** Under normal daily circumstances were no 1067mm operations are taking place the filler pieces are to be in place and the derail is to be set for the 1067mm track. It is still the driver's responsibility to ensure that all the filler pieces are in place and the derail set over 1067mm gauge rail before proceeding through the crossing.

**42.3.2. 1067mm Operations.** On days of 1067mm operations before any movements through the crossover are undertaken, the drivers of both the 1067mm and 457mm gauge are to communicate with each other to plan the safe movement through the crossing. To set the road for 1067mm operations the derail is to be set over the 457mm track and then the track filler pieces are to be removed. The filler pieces are to be placed on the ground next to frog that they were removed from.

On completion of 1067mm operations the crossing is to be set up for 457mm operations. The derail key is held in Peronne's cab.

<b>Warning:</b> Under no circumstances is the derail to be moved or the track filler pieces replaced without the approval of the 1067mm gauge driver.
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## *Special Movements & Shunting Operations.*

- 43. Shunt Movements.** All shunt movements are to be under the control of the guard or other qualified person. The driver is to ensure that he has a clear line of sight to the guard during movement. If the line of sight is lost or the driver does not understand the guard's signal he is to stop the movement until the matter is resolved.
- 44. Push Back Movements.** All push back movement require that a guard or other qualified person is available to control the movement. Drivers are not to carry out a push back movement by themselves.
- 45. Push Pull Movements.** When the removable track sections have been removed passenger operations of the 457mm railway may be carried out by using the push pull movement. The following procedures are to be followed for push pull movements:-

**Warning: Under no circumstances are push pull movements to be undertaken without a guard or other qualified person to control the reverse movement.**

- 45.1. Forward (Pull) Movement.** The train travels forward and stops just short of the facing stop board.  
In the clockwise direction the train must not pass board #1 below  
In the anti-clockwise direction the complete train must stop beyond board #2 below

**Terminating  
trains must not  
pass this point**

Board #1

**Push pull movements  
must clear this point  
before reversing**

Board #2

- 45.2. Reverse (Push) Movement.** The train then reverses under the direction of the guard until it reaches the other stop board and must also observe the instructions on the relevant board.

The following precautions are to be followed for the push movement:-

- 45.2.1.** Red and green flags and a whistle are to be used by the guard to signal the driver.
- 45.2.2.** The guard is to ensure that the driver can see his signals. Should there be a section of track that has obstructions that prevent visibility of the guards signals, the crew are to arrange an additional form of communication (whistle, mobile radio, mobile phone, another crew member to relay signals, etc)
- 45.2.3.** The guard is to ensure that he has a clear view of the track at the rear of the train at all times.



- 45.2.4. The guard is to stop the train if in doubt that the track is clear.
- 45.2.5. The guard is to stop the train in accordance with clauses 45.1 & 45.2
- 45.2.6. Drivers are not to proceed unless they can see the guard's signals or have arranged some alternative form of communication
- 45.3. **Forward Movement.** Once train has reached the stop board at the end of the reverse movement, the driver is to await for the guard's right of way signal before commencing the movement.
- 45.4. **Departing from Dulux Straight South.** When departing from Dulux Straight South, the crew shall await a Flashing Yellow indication on signal 416. The train must not depart until the commencement of this indication, but may depart on Red if the Flashing Yellow ends.

## *Train Set Up*

- 46. **Locomotive Preparation.** The driver is to prepare the locomotive for service in accordance with locomotive's Daily Inspection Report Form and Operating Instructions.
- 47. **Consist Inspection.** The driver is to carry out an inspection of the consist in accordance with 457mm gauge Carriage Consist Inspection sheet (Form 457-2006-322). This form can be found on the back of the Locomotive Inspection Sheet.
- 48. **Consist Pick Up.** The guard is to assist the driver by controlling the movement of the locomotive to the consist. If there is no guard available the driver will have to carry out this task.  
The following procedures are to be followed:-
  - 48.1. The 457mm/1067mm crossover is to be checked to ensure that the filler pieces are in place.
  - 48.2. That the 457mm/1067 crossing protection derail is set over the 1067mm track.
  - 48.3. Switchstand 409 is set for the steam shed track.
  - 48.4. Once the locomotive is clear of switchstand 409, reset the switchstand to the main line and lock the point.
  - 48.5. Move the locomotive to a position just short of the consist and stop the locomotive.

- 49. Coupling Procedures.** The following procedures are to be followed by the guard. If there is no guard available the driver will have to carry out this task ensuring that before leaving the locomotive cab that the locomotive hand brake has been applied, and the valve gear or transmission is in neutral. The following procedures are to be followed:-
- 49.1.** Ensure that the wheel chocks are in place on the consist.
  - 49.2.** Unlock and remove the coupling pin on the consist.
  - 49.3.** Guide the locomotive back until the locomotive's coupling bar is into a position that will enable the coupling pin to be reinstalled on the consist.
  - 49.4.** Reinstall the coupling pin and fit and lock the locking pin.
  - 49.5.** Attach the safety chains (and the electrical jumper cable if fitted) between the locomotive and consist.
  - 49.6.** Remove the consist's wheel chocks and place them in their storage location.

### *Movement to Callington Station*

- 50. Track Inspection.** On departure from the consist storage area the driver is to complete a full circuit of 457mm track at a low speed to carry out a track inspection before stopping at Callington Station. The driver is to:-
- 50.1.** Ensure that the removable track sections are in place and bolted.
  - 50.2.** The correct operation of all signals and level crossing warning systems.
  - 50.3.** That the track is clear of all obstructions and faults and is serviceable
  - 50.4.** Complete the Track Inspection Report. (NRM Form 457-2006-324 or 457-2006-323)
  - 50.5.** Report all track faults to the Operations Manager.
  - 50.6.** If any faults are found that comprises safety, cease operations until the fault is rectified.
- 51. Station Approach.** Speed on approach to the station is to be at low speed to ensure the safety of members of the public within the station area. The driver is to be prepared to stop instantly if safety is comprised.

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## *Passenger Operations*

- 52. Responsibilities.** When a guard is rostered, he/she is responsible for the safe loading and unloading of passengers, and management of their safety whilst the train is moving. On days when a guard is not available the driver becomes responsible for the guard's duties.
- 53. Location for Passenger Loading and Unloading.** Passenger loading and unloading is normally only permitted at Callington..

The only exceptions to this are:-

- 53.1.** A failure of the locomotive.
- 53.2.** An emergency situation that prevents the train from returning to Callington.

<p><b>Note: If passengers are unloaded away from Callington both the driver and/or guard are responsible to ensure the safety of the passengers until they reach a safe area.</b></p>
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- 54. Children on board the Train.** All children riding on the train are to be accompanied by an adult who has the authority to supervise the children. Under normal circumstances this would be a parent, guardian or adult sibling. In the case of school groups or vacation care groups the teachers and/or adult supervisors are to supervise the children whilst travelling on the train. The following is to be observed:-
- 54.1.** No carriage is to be fully occupied by children alone.
- 54.2.** At least one adult must be in a carriage carrying children.
- 54.3.** If the number of children carried requires the use of more than one compartment in the carriage, the supervising adult must sit in the middle compartment to enable better supervision of the children.
- 54.4.** Before departure, brief the passengers of the requirement for children to remain seated and keep their body/arms in the confines of the carriage.

- 55. Loading of Passengers.** The following procedures are to be followed whilst loading passengers:-

**Note: No passengers are permitted to ride on or in the locomotive.**

- 55.1. Open the doors on the consist.
- 55.2. Open the platform entry gate and supervise the passengers boarding the train.

**Note: The station gates are to remain closed when the train is in operation and no patrons are to be on the platform while the train is operating.**

- 56. Preparation for Departure.** When all passengers have boarded the train, the guard, or in his absence, the driver shall:-

- 56.1. Ensure all consist doors are closed and properly latched.
- 56.2. Count the passengers and record numbers as required.
- 56.3. Ensure that both the platform entry and exit gates are closed and there are no unauthorised persons on the platform.
- 56.4. Brief the passengers on the safety requirements of the ride.
- 56.5. After a final check to ensure that it is safe to depart give the appropriate signals to driver to commence the trip.

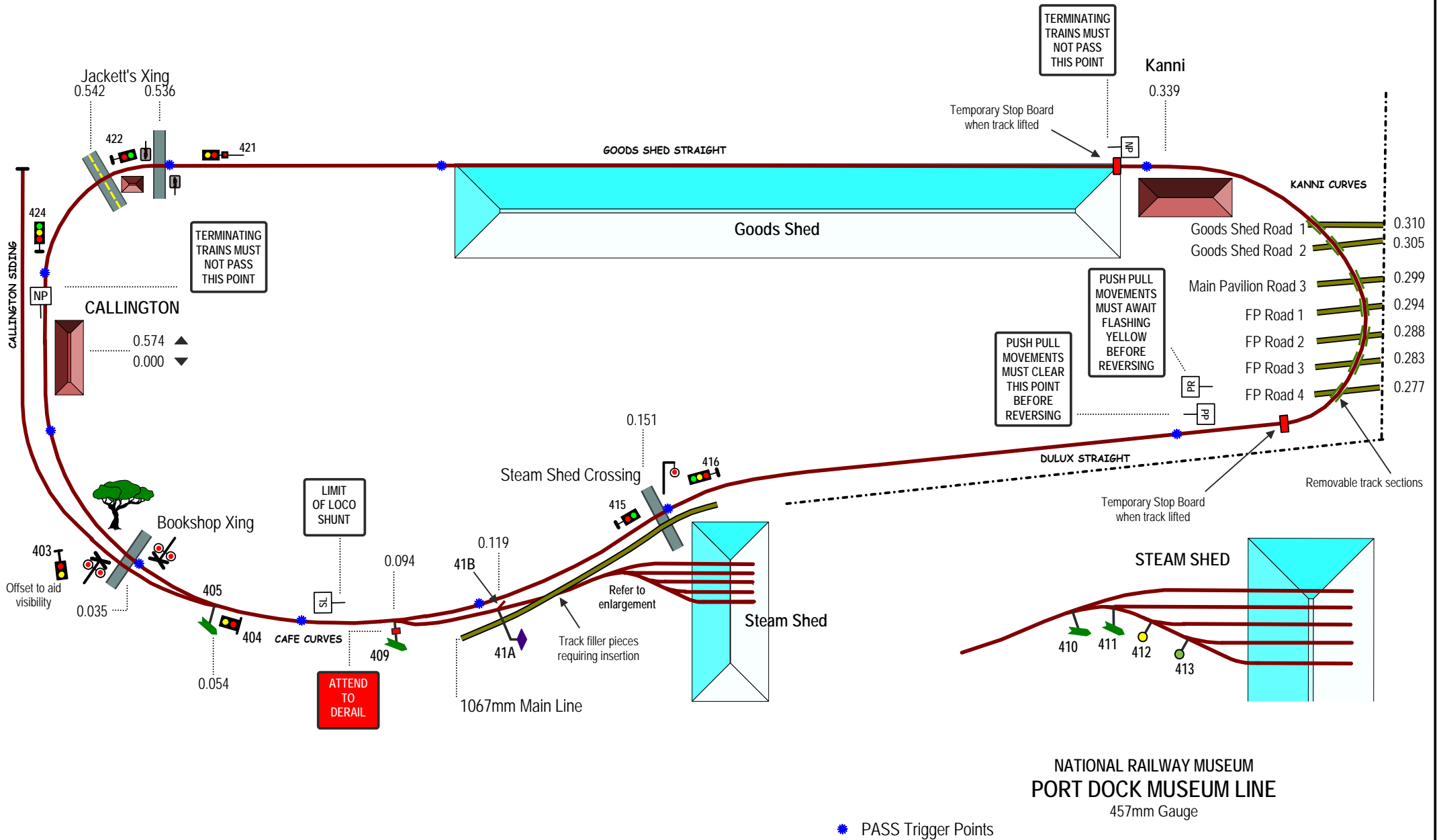
- 57. Supervision during Movement.** The guard is to ensure that the passengers remain safe during the ride. If required he is to stop the train to rectify any breaches in safety or other concerns. If he has major problems with any passenger he may remove them from the train. He can call on the driver, Operations Manager or Duty Manager for assistance.

- 58. Unloading of Passengers.** The following procedures are to be followed whilst unloading passengers:-

- 58.1. Once the train has come to a complete stop and it is safe to do so open consist doors to allow the passengers to leave the train.
- 58.2. Open the platform exit gate to allow the passengers to leave the platform area.
- 58.3. Once all passengers have left the platform area close the exit gate before allowing any new passengers to enter the platform.

## *End of Day Procedures*

- 59. Consist Stabling.** The following procedures are to be followed by the guard, if there is no guard available the driver will have to carry out this task ensuring that before leaving the locomotive cab that the locomotive hand brake has been applied and is in neutral or mod gear. On arrival at the stabling area the following procedures are to be followed:-
- 59.1.** Place the consist's wheel chocks in place.
  - 59.2.** On the consist remove the coupling pin locking pin and withdraw the coupling pin.
  - 59.3.** Move the locomotive's coupling bar out of the way and reinstall the coupling pin and refit the locking pin.
  - 59.4.** Disconnect the safety chains (and the electrical jumper cable if fitted) between the locomotive and consist.
  - 59.5.** Ensure that the locomotive's safety chains are secured to their coupling point before the locomotive departs from the consist.
  - 59.6.** Release the Locomotive from service.
- 60. Locomotive Release.** The guard is to assist the driver by controlling the movement of the locomotive from the consist to the Steam Shed. If there is no guard available the driver will have to carry out these tasks in a safe manner. The following procedures are to be followed:-
- 60.1.** Control the movement of the locomotive to a position on the mainline just short of switchstand 409.
  - 60.2.** Set Switchstand 409 for the steam shed track and lock it with its padlock.
  - 60.3.** The 457mm/1067mm crossing is to be checked to ensure that the filler pieces are in place and that crossover protection derail is set over the 1067mm track.
  - 60.4.** Control the movement of the locomotive from switchstand 409 to the locomotive shut down and storage area.
- 61. Locomotive Shut Down.** The driver is to shut down the locomotive in accordance with locomotive's Operating Manual.



**NATIONAL RAILWAY MUSEUM  
PORT DOCK MUSEUM LINE**  
457mm Gauge

★ PASS Trigger Points