PUBLIC TRANSPORT AUTHORITY
SAFEWORKING RULES AND PROCEDURES

4005
RAIL TRAFFIC LIGHTS AND MARKERS
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1. PURPOSE

The purpose of this rule is to provide the protocols for use of Visibility Lights and Marker Lights on Rail Traffic in the Public Transport Authority (PTA) Network to:

- indicate the normal direction of Travel;
- indicate completeness of Rail Traffic; and
- enhance the visibility of Rail Traffic.

2. GENERAL

Rail Traffic must not enter the PTA Network unless the Rail Traffic lights and Marker Lights are working correctly.

Headlights must be set on full, at the front of all moving Rail Traffic unless required to be dimmed or turned off as prescribed within this rule.

An approved End-Of-Train Marker or at least one approved red light must be displayed at the rear of Rail Traffic.

3. HEADLIGHT USE

WARNING

When approaching Level Crossings, Headlights must remain on full unless opposing Rail Traffic is simultaneously approaching. In this case, Rail Traffic Crew are permitted to dim the Headlights.

As indicated in the following diagrams Rail Traffic Crew are permitted to dim or turn off Headlights when Visibility Lights are operating under the following conditions:
Figure 3.1 When approaching, standing or working at Locations where Shunting is being performed.

Figure 3.2: When approaching or stopped behind other Rail Traffic.
FIGURE: 3.3: When approaching and crossing the lead end of opposing Rail Traffic.
FIGURE 3.4: When Handsignals are displayed or when approaching people or workers on or about the Track.
4. **DISPLAYING VISIBILITY LIGHTS**

If provided, the Visibility Lights of Rail Traffic must be turned on when the Rail Traffic is moving on Running Lines.

If Visibility Lights fail, Rail Traffic may continue normally, provided Headlights are turned on.

5. **USING LIGHTS FOR WARNING**

If necessary, Rail Traffic Crew may flash their Headlights or change the colour of Marker Lights displayed, from white to red to give a Warning.

6. **FAILED HEADLIGHTS**

All cases of total Headlight failure must be reported to the Train Controller.

The Train Controller and the Rail Traffic Crew must make arrangements to effect repairs.

If this is not possible, the Rail Traffic may proceed to the next repair facility.

**WARNING**

Where Headlights have failed, Rail Traffic Crew may need to make additional use of the Whistle to compensate for the lack of visual Warning.

6.1. **TOTAL HEADLIGHT FAILURE AND VISIBILITY LIGHTS NOT AVAILABLE**

If visibility is good, Rail Traffic must Travel at Controlled Speed.

During periods of Low Visibility, Rail Traffic must Proceed at Controlled Speed to the next repair facility.

When approaching Level Crossings, Rail Traffic must Travel at Restricted Speed prepared to Stop and not proceed over the Level Crossing, until:

- Active Control Level Crossing warning equipment is operating; or
- road or pedestrian traffic is not approaching or has stopped at the Level Crossing.

When approaching Locations where the Rail Traffic Crew is aware of or can see Workers or other personnel are present, Rail Traffic must Travel at Restricted Speed.

During hours of darkness, Rail Traffic must be declared a failure and recovered in accordance with Rule 4009 Removing Disabled Rail Traffic.
6.2. **TOTAL HEADLIGHT FAILURE AND VISIBILITY LIGHTS AVAILABLE**

If the *Headlights* have failed and *Visibility Lights* are available, *Rail Traffic* may *Travel* at *Normal Speed*.

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7. **FAILED HEADLIGHTS AND WHISTLE**

7.1. **HEADLIGHTS AND WHISTLE FAILURE, AND VISIBILITY LIGHTS NOT AVAILABLE**

If the *Headlights* and *Whistle* fail and *Visibility Lights* are not available and no other *Motive Power Unit* can be used as the lead unit, the *Rail Traffic Crew* must carry out instructions for operating with total *Headlight* failure when *Visibility Lights* are not available in accordance with Section 6.1.

7.2. **HEADLIGHTS AND WHISTLE FAILURE, AND VISIBILITY LIGHTS AVAILABLE**

If the *Headlights* and *Whistle* fail and *Visibility Lights* are available, the *Rail Traffic Crew* must:

- continue the movement with the *Visibility Lights* turned on and *Travel* at:
  - *Controlled Speed* if visibility is good; or
  - *Restricted Speed* during periods of *Low Visibility*;
- slow to *Restricted Speed* before each *Level Crossing* and be prepared to *Stop* if road or pedestrian traffic is approaching;
- not *Proceed* over the *Level Crossing* unless, at an *Active Control Level Crossing*, equipment is operating.
- slow to *Restricted Speed* approaching other *Rail Traffic* and where *Workers* may be present on the ground;
- slow to *Restricted Speed* approaching people on or about the *Track*; and
- slow or *Stop* as necessary, if the approach of *Rail Traffic* is not attracting the appropriate attention.
8. RAIL TRAFFIC MARKERS

8.1. FRONT OF RAIL TRAFFIC

The front of Rail Traffic must be identified by either Headlights, Visibility Lights or Marker Lights.

If Marker Lights become defective they must be repaired or replaced as soon as practicable.

8.2. REAR OF RAIL TRAFFIC

The rear of Rail Traffic must be identified by:

- an End-Of-Train Marker;
- one or more clearly visible, steady or flashing red lights;
- an End-Of-Train Monitor; or
- a combination of the above.

End-Of-Train Markers and monitors must have at least one red light that is illuminated during the hours of darkness or when visibility is low.

8.3. MOTIVE POWER UNIT IS REAR VEHICLE

When a Motive Power Unit is operating without Vehicles or is at the rear of the Rail Traffic Consist, one of the following must be displayed:

- one or more red tail lights; or
- an End-Of-Train Marker.

8.4. INSPECTION OF END-OF-TRAIN MARKER

The operation of an End-Of-Train Marker must be checked before departure and where possible enroute by:

- direct observation of the marker; or
- using telemetry in the cab of the Rail Traffic.

8.5. FAILED END-OF-TRAIN MARKER

If the rear End-Of-Train Marker fails enroute:

- the Train Controller must be told;
- a red reflector, red flag or red light may be used as an alternative rear marker; and
- Rail Traffic may Travel only as far as the next Location where the End-Of-Train Marker can be repaired or replaced.
8.6. MISSING END-OF-TRAIN MARKERS

If Rail Traffic is detected with no End-Of-Train Marker the Train Controller must be informed.

Rail Traffic may Travel at the discretion of the Train Controller only as far as the next Location where the marker can be replaced.

Rail Traffic must be worked in accordance with Rule 5023 Manual Block Working until the End-Of-Train Marker has been replaced.

The Train Controller must confirm that:

- the Rail Traffic is Complete; or
- the Sections to the rear of the Rail Traffic are clear.

If the Rail Traffic is unable to be confirmed as Complete, affected Sections must be treated as Obstructed in accordance with Rule 2009 Reporting and Responding to Conditions Affecting the Network.

Until it can be established that the section is clear, the Train Controller must:

- apply Blocking Facilities to prevent other Rail Traffic from entering the affected Section;
- tell Rail Traffic Crew within the affected Section to Stop their Rail Traffic; and
- warn Rail Traffic on Adjacent lines.

8.7. IDENTIFYING NUMBER

Where provided, number lights must be illuminated on the leading Motive Power Unit.

8.8. OTHER LIGHTS

Step and other lights may be illuminated on all units to improve visibility of Rail Traffic at Night.

9. REFERENCE

Rule 2009 Reporting and Responding to Conditions Affecting the Network (CAN)
Rule 4009 Removing Disabled Rail Traffic
Rule 5023 Manual Block Working

10. EFFECTIVE DATE

1 November 2015