

**PUBLIC TRANSPORT AUTHORITY**  
SAFEWORKING RULES AND PROCEDURES

**3013**  
LOOKOUT  
WORKING

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## 1. PURPOSE

The purpose of this rule is to detail how *Lookout Working* is to be used to give *Warning* of approaching *Rail Traffic* to *Track Workers* in or near the *Danger Zone* in the Public Transport Authority (PTA) *Network*.

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## 2. GENERAL

If the *Absolute Signal Blocking (ASB)* method is practical, this is the preferred method and must be applied as per **Rule 3011 Absolute Signal Blocking**.

The *Lookout Working* method must not be used for work on *Overhead Line Equipment (OLE)*, work that breaks the *Track* or affects *Infrastructure* integrity.

*Lookouts* are the only safety measure used in this method of working on *Track*.

Work in the *Danger Zone* using the *Lookout Working* method must only be done where visibility allows.

The *Lookout* must be clearly identified.

*Lookout Working* may be used for:

- work requiring the use of tools which can be easily and immediately removed from the *Track* by one person without mechanical assistance;
- inspections in the *Danger Zone*; or
- work conducted in the *Rail Corridor*, but outside of the *Danger Zone*, that may intrude into the *Danger Zone*.

### 2.1. TOOLS

*Workers* using or being protected by the *Lookout Working* method may use *Light, Powered* or *Light, Non-powered Hand Tools*.

The tool or device must not interfere with the ability of the *Worker* to respond to a *Lookout's* warning.

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## 3. AUTHORISATION

No-one is permitted to enter the *Rail Corridor* without the appropriate *Authority*.

### 3.1. ENTERING THE RAIL CORRIDOR FOR WORK

Before entering the *Rail Corridor*, the *Protection Officer (PO)* must log into the PTA's *Electronic Book On System*. When the work is completed, the *PO* must log off in the *Electronic Book On System*.

If for any reason the *Electronic Book On System* fails to record the *PO's* details then the *PO* must contact the *Infrastructure Control Officer (ICO)*.

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## 4. PROTECTION OFFICER

There must be a *PO* present at the *Worksite* for the period of the work.

A *PO* must:

- conduct a pre-work *Safety Assessment*;
- ensure work in the *Danger Zone* does not begin before the required safety measures are in place;
- be responsible for the *Protection of Workers* from *Rail Traffic*;
- tell *Workers* about the *Locations of Safe Places*;
- determine the number of *Lookouts* needed to protect the work; and
- ensure *Lookouts* do not work continuously at the same *Location* for more than 60 minutes.



### NOTE

A *PO* must be satisfied that other work will not interfere with *Protection* duties.

## 5. PROTECTION



### WARNING

Work must not start in the *Danger Zone* until the required safety measures are in place.

### 5.1. SAFE PLACE

An easily reached *Safe Place* must be available when the *Lookout Working* method is used.

*Workers* must immediately remove themselves, tools and materials to a *Safe Place* when told to do so by a *Lookout*.



### WARNING

A *PO* must take into account the extra time required for the minimum *Sighting Distance* when providing additional *Lookouts* or touch *Warnings*.

## 5.2. NOISY ENVIRONMENT

When the *PO* has assessed that the audible *Warning* provided by the *Lookout* cannot be heard by all *Track Workers*, the *PO* must ensure *Touch Lookouts* are positioned to provide physical *Warning* to those *Workers*.



### NOTE

The *Touch Lookout* must do no work other than providing *Warning*.  
The *Lookout* must be visible to the *Worker* at all times.

## 5.3. PLACING LOOKOUTS

The *PO* must ensure:

- that the *Locations* of *Lookouts* and the visibility conditions give *Lookouts* enough *Sighting Distance* of approaching *Rail Traffic*;
- that *Lookouts* have *Effective Communication* with *Workers* and are equipped with an audible *Warning* device;
- when working in *Bidirectional* locations where rail traffic can approach from either direction:
  - a minimum of one (1) *Lookout* is placed either side of the *Worksite* and a minimum of five (5) seconds reaction time can be achieved when calculating the *Sighting Distance*; or
  - a single *Lookout* is placed to provide warning for both directions and a minimum of 15 seconds reaction time can be achieved when calculating the *Sighting Distance*.
- that when *Rail Traffic* approaches, *Lookouts* can warn *Workers* in time to allow them to:
  - react to the *Warning* of the approach of *Rail Traffic*; and
  - move themselves and their equipment to a *Safe Place* before the *Rail Traffic* arrives.

## 5.4. ADDITIONAL LOOKOUTS

To give sufficient *Warning* time *POs* may use additional *Lookouts*.

A maximum of one additional *Lookout* may be placed in each direction from which *Rail Traffic* may approach.

The additional *Lookout* must remain within sight and hearing distance of the *Lookout* closest to the *Worksite*.

## 5.5. USING LOOKOUTS AT NIGHT

The General Manager of the Network & Infrastructure Division will only permit the use of *Lookout Working at Night* when the *Worksite Location* has been compared against *Exclusion Zone* locations identified in the N&I **8800-400-001 Public Transport Authority Rail Access Manual**.

Work in the *Exclusion Zones* will not be permitted to be carried out under *Lookout Working*; other *Protection* methods in these rules will be used.

## 5.6. LOOKOUTS



### WARNING

*Lookouts* must not use radios or telephones to warn *Workers*.

*Lookouts* must:

- agree with the *PO* about how *Workers* will be warned about the approach of *Rail Traffic*;
- keep a continuous watch for the approach of *Rail Traffic*;
- remain within sight and hearing or in physical touch of the *Workers*. If this cannot be done safely, the *PO* is to be notified;
- tell the *PO* if the *Lookout* needs to move from the designated position and only move if all *Workers* and their equipment are in a *Safe Place* or a new *Lookout* is in position; and
- tell the *PO* if conditions, such as visibility, change.



### WARNING

*Lookouts* must do no work other than look for and give *Warning* about the approach of *Rail Traffic*.

*Lookouts* must not:

- manage the passage of *Rail Traffic*;
- do any other work; or
- use any portable electronic devices, such as radios, mobile phones or any similar devices, at any time.

## 5.7. RAIL TRAFFIC CREW

On approaching work groups, the *Rail Traffic Crew* must sound the *Whistle* to give *Warning*. If *Workers* are not clearing to a *Safe Place* the *Whistle* must be repeatedly sounded until the *Lookout* has given the *CLEAR Handsignal*.

## 5.8. GIVING WARNING

When *Rail Traffic* approaches the *Worksite* or a *Warning* is given by the additional *Lookout*, the *Lookout* must immediately warn the *Workers*.



### NOTE

Warning must be given as soon as *Rail Traffic* is seen to be approaching even if the *Rail Traffic* has not reached the minimum *Sighting Distance*.



### WARNING

If acknowledgement of the *Lookout's Warning* is not immediate the *Lookout* must continue to sound the *Warning* until acknowledged.

The *Workers* must:

- acknowledge the *Lookout's Warning* by raising an arm above their head;
- remove their tools, equipment and materials from the *Danger Zone*;
- move to a *Safe Place*; and
- notify the *Lookout* by raising an arm above their head.

Only when all *Workers* and their equipment are in a *Safe Place* can the *Lookout* face the approaching *Rail Traffic* and give the CLEAR *Handsignal* to the *Rail Traffic Crew*.

The *Lookout* must maintain the CLEAR *Handsignal* until the *Rail Traffic Crew* acknowledges the *Handsignal*.

The *Lookout* must make sure that the line is *Clear* before telling the *PO* that it is safe for work to resume.

## 5.9. LOW LIGHT AND POOR VISIBILITY

*POs* must always remain aware of the changing conditions at the *Worksite* such as low light and the reduction of *Sighting Distance* for the *Lookout*.

If *Sighting Distance* reduces below the minimum required, then work must cease and all *Workers* and equipment must move to a *Safe Place*.

## 5.10. ADJACENT LINE

If the *Safety Assessment* indicates that *Workers* need to be protected from *Rail Traffic* on *Adjacent* lines, the *PO* must arrange for the *Adjacent* lines to be protected as per **Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines**.

## 6. CALCULATING MINIMUM SIGHTING DISTANCE



### WARNING

If the calculated minimum *Warning* times cannot be met, then *Lookout Working* must not be used.



### WARNING

When using additional *Lookouts*, five (5) extra seconds reaction time must be added for each additional *Lookout*.

The minimum *Warning* time required shall be calculated as follows:

- reaction time (minimum five (5) seconds);
- time required to move the *Workers*, tools, equipment and materials clear of the *Danger Zone* (determined in the test conducted by the *PO*); plus
- being in a *Safe Place* for a minimum of ten (10) seconds before *Rail Traffic* arrives.

### 6.1. EXAMPLE OF HOW WARNING TIME IS CALCULATED

Reaction time	5 seconds
Time required to move the <i>Workers</i> , tools, equipment and materials clear of the <i>Danger Zone</i>	20 seconds
Minimum time to be in a <i>Safe Place</i> before <i>Rail Traffic</i> arrives	10 seconds
Minimum <i>Warning</i> time required	Total 35 seconds

TABLE 6.1: Example of How Warning Time is Calculated



### WARNING

The *Sighting Distance* must be measured.

The minimum *Sighting Distance* needed to see an approaching *Rail Traffic* movement, so that sufficient *Warning* can be given, is dependent on the minimum *Warning* time required and the maximum *Track* speed, and is determined from **Table 6.2** as demonstrated in the following example:



**Example:** The minimum *Warning* time required in this example is 35 seconds and the maximum *Track* speed in the area is 120 km/h, therefore the minimum *Sighting Distance* of approaching *Rail Traffic* is calculated in **Table 6.2** to be 1170 metres.

The *Lookout* must therefore be positioned to be able to see approaching *Rail Traffic* from at least this far in order to give the minimum *Warning* time required. The calculations must be rounded up to the nearest five (5) seconds.

The *PO* must:

- know the maximum speed for *Rail Traffic* on the *Section* of line that the work is to take place; and
- conduct a test to determine how long it will take for the *Workers* to remove their equipment and move to the *Safe Place*.

## 6.2. MINIMUM SIGHTING DISTANCE

Maximum Track Speed	20 sec	25 sec	30 sec	35 sec	40 sec	45 sec
130 km/h	730 m	910 m	1090 m	1270 m	1450 m	1630 m
120 km/h	670 m	840 m	1000 m	1170 m	1340 m	1500 m
110 km/h	620 m	770 m	920 m	1070 m	1230 m	1380 m
100 km/h	560 m	700 m	840 m	980 m	1120 m	1250 m
90 km/h	500 m	630 m	750 m	880 m	1000 m	1130 m
80 km/h	450 m	560 m	670 m	780 m	890 m	1000 m
70 km/h	390 m	490 m	590 m	680 m	780 m	880 m
60 km/h	340 m	420 m	500 m	590 m	670 m	750 m
50 km/h	280 m	350 m	420 m	490 m	560 m	630 m
40 km/h	230 m	280 m	340 m	390 m	450 m	500 m
30 km/h	170 m	210 m	250 m	300 m	340 m	380 m
25 km/h	140 m	180 m	210 m	250 m	280 m	320 m
20 km/h	120 m	140 m	170 m	200 m	230 m	250 m
15 km/h	90 m	110 m	130 m	150 m	170 m	190 m

TABLE 6.2: Minimum Sighting Distance

## 7. ENDING LOOKOUT WORKING

The *PO* must make sure all *Workers*, tools, equipment and materials are clear of the *Worksite*.

## **8. KEEPING RECORDS**

The *PO* must keep *Permanent Records* about the details and changes to the *Worksite Protection* arrangements on the Lookout Working Worksite Planner form.

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## **9. REFERENCE**

Rule 2001 Walking in the Danger Zone

Rule 2003 Handsignals and Verbal Commands

Rule 3011 Absolute Signal Blocking

Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines

N&I 8800-400-001 Public Transport Authority Rail Access Manual

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## **10. EFFECTIVE DATE**

1 November 2018