



# Rail Industry Safety Notice



## RISN No. 31

### Track Occupancy Authorities

#### Background

On 5 May 2010, a rail maintenance worker was fatally injured when his excavator was struck by a passenger train near Newbridge, west of Bathurst. The workers were carrying out work under a Track Occupancy Authority (TOA). TOAs are issued under Network Rules NWT304 and ANWT304. This incident is under investigation by ITSRR.

The purpose of this Notice is to emphasise certain requirements relating to TOAs, i.e.

- the requirements for placing protection for fixed worksites by placing detonators and flags / lights, and
- the safety issues involved when a TOA is issued with a train already occupying the area covered by the TOA.

#### The rule requirements for protection by detonators and flags/lights

Under the heading “Protecting fixed worksites” in Network Rules NWT304 and ANWT304, the following appears:

Fixed worksites must have the extra protection of three detonators and a red flag/red light at least 500 metres on each side of the worksite, or at the limits of the Authority.

If there is only one fixed worksite within the limits of the TOA, detonator protection is not required:

- in Train Order territory, or
- if a staff or half pilot staff can be secured for the duration of the TOA.

Rules NWT304 and ANWT304 then specify further conditions relating to multiple worksites, worksites close to a limit of the TOA, and situations where rail traffic can approach from more than one direction.

Railway operators are to note that unless a fixed worksite within a TOA is in Train Order territory or a staff of half pilot staff can be secured for the duration of the TOA, “detonator protection” is **ALWAYS** needed for a fixed worksite, *even if it is the only worksite within the TOA.*



It is essential that no confusion arises as a result of interpreting parts of the associated procedure NPR701 and ANPR701 in isolation from the other requirements.

Accordingly, Protection Officers **MUST** place detonator protection for fixed worksites in **ALL** TOAs except in Train Order territory or when a staff or half pilot staff has been taken and secured. This extra protection requirement is a key component of the Rule in order to provide a “second layer of defence” in accordance with basic safety management principles.

Protection Officers **MUST** also be aware that:

- multiple fixed worksites or dual TOAs must be protected in accordance with the Rule, even in Train Order territory or if a staff or half staff has been secured
- if a track vehicle journey is stopped to carry out work, then the work must be protected as a fixed worksite.

### **The rule requirements for issue of a TOA when there is a train in the area covered by the TOA**

Network Rules NWT304 and ANWT304 permit “joint occupancy following a train movement”, and direct that in such a case:

Before issuing the Authority, the Train Controller must make sure that the preceding train has passed:

- the proposed worksite, or
- the starting point from which the track vehicle included in the Authority will travel.

Network Procedures NPR701 and ANPR701 state that the Network Control Officer must:

Make sure that:

- there is no rail traffic within the proposed limits of the TOA, or
- rail traffic within the limits has passed beyond the proposed worksite or the starting point of the track vehicle journey, or
- if the TOA is associated with disabled rail traffic, the rail traffic will not be moved before authority is obtained from the Protection Officer.



and in addition, Network Procedures NPR701 and ANPR701 state that the **Protection Officer** must:

If the TOA is to be authorised to start after a train movement:

- watch the train pass the point from which the track is to be occupied, and
- give the Network Control Officer the identification number of the lead unit of the train.

The rules and procedures impose clear obligations on the Train Controller and Protection Officer (and Signaller when designated as the Network Control Officer):

1. The Train Controller (and Signaller) must ascertain the nature of the work to be performed (particularly noting whether it involves a fixed worksite or a track vehicle movement), and **specifically where this work will occur**.
2. If the proposed TOA area is to be occupied while there is still a train ahead within that area, the Train Controller (and Signaller) must take **specific action to verify** that the last train has passed beyond the proposed worksite or the starting point of the track vehicle journey.
3. While all reasonable actions should be taken to implement point 2, they **MUST** include the **Protection Officer**:
  - watching the train pass the point from which the track is to be occupied (note that for a fixed worksite, this refers to the physical limit of the worksite in the direction of movement of the preceding train, not just any location where the Protection Officer happens to be currently situated)
  - giving the Network Control Officer the identification number of the lead unit of the train.
4. Note that the following restrictions are vital for safety:
  - The Network Control Officer **MUST NOT** assume that he/she knows the location of the worksite or track vehicle entry, but **MUST** obtain this specific information explicitly from the Protection Officer. This information **MUST** include the precise details such as kilometrage or other unique location identification, and track identification if there is more than one track.
  - The Network Control Officer **MUST NOT** assume that the Protection Officer will know the whereabouts of any rail traffic not directly under the control of the



Protection Officer.

- The Network Control Officer **MUST NOT** issue the TOA unless the Protection Officer has personally seen the train pass and has correctly stated the identification number of the lead unit.
- The Network Control Officer **MUST NOT** assume that the Protection Officer's certification can be omitted because there is some other reason to believe that the train has passed. If the Protection Officer cannot give the certification, then the TOA **MUST NOT** be authorised until the train has completely departed outside the limits of the proposed TOA.
- The Protection Officer **MUST NOT** accept a TOA if there is stated to be a train ahead (item 5 ticked on the TOA form) **UNLESS** he/she has **personally** seen the train pass and has provided the required certification to the Network Control Officer.

## Action

Accredited operators and rail infrastructure managers are to ensure that all personnel who might be involved with the authorisation, issue or use of TOAs are aware of, understand, and apply these requirements.

Train Controllers, Signallers and Protection Officers are to be informed that they must comply with all the obligations and restrictions listed above.

ITSRR will continue to monitor and inspect for compliance with these Rules and Procedures and will take appropriate action in response to any contraventions.

Len Neist  
**Chief Executive**