

Work on Track

## NWT 318 Work that affects traction return currents or track-circuits

### Description

This document describes the requirements for work that affects traction return currents or track-circuits.

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### Purpose

To prescribe the rules for work that affects traction return currents or track-circuits.

### Principle

Work that affects traction return currents or track-circuits must be done in accordance with relevant Engineering Standards.

### Traction return currents

The Signals Engineer must be consulted before work that could affect traction return currents is started. The Signals Engineer gives details of bonding arrangements and other requirements.

Only the Signals Engineer or delegate may authorise the use of temporary rail bonds.

Authority to use temporary rail bonds is recorded on a *NRF 013 Temporary Rail Bond Approval* form.

An Electrical Representative must be at the worksite, to provide suitable bonding arrangements and deal with other requirements, before:

- an electrical cable which connects rails to a substation is disconnected, or
- rails near a substation are removed or broken.



#### Warning

Unless special precautions are taken, a potentially fatal voltage can develop across rail gaps when the traction return circuit is broken.

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Broken or disconnected electrical cables connecting a substation to a rail must be reported immediately to the Electrical System Operator.

Workers must stay clear of the cables until the Electrical System Operator or delegate advises that it is safe.

## Track-circuits

The Maintenance Representative must tell the Signals Engineer before starting work on track that may affect track-circuits.

The Signals Engineer must decide if a Signals Maintenance Representative should attend.

If a Signals Maintenance Representative is needed, work on track must not start before it is authorised by the Signals Maintenance Representative.

### Note

Areas that are not fully track-circuited may have portions of line that are track-circuited.

If work can affect the track-circuits for an automatic level crossing, the level crossing must be protected.

### Note

Work that affects track-circuits affects the signalling system.