



# Code of Practice for OTP Recovery

**M&EE Networking Group**

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## Document revision history

Issue	Date	Reason for change
1	Jul 2012	First issue (now withdrawn)
2	Nov 2014	Mention of POL removed and recommended actions improved.

## Background

A sub-group of the M&EE Networking Group have looked at the processes necessary for the recovery of failed OTP on the railway line. The M&EE Networking Group recommend this COP as good practice for the industry.

M&EE COPs are produced for the benefit of any industry partner who wishes to follow the good practice on any railway infrastructure. Where an infrastructure manager has mandated their own comparable requirements, the more onerous requirements should be followed as a minimum for work on their managed infrastructure.

The M&EE Networking Group makes no warranties, express or implied, that compliance with this document is sufficient on its own to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.

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## Sign off

The M&EE Networking Group agreed and signed off this Code of Practice on 12 November 2014 and published on 5 September 2015.

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## Purpose

This Code of Practice details the processes required for the recovery of failed OTP from the railway line.

## Scope

This Code of Practice addresses the processes necessary to recover OTP that has failed from the railway line.

## Definitions

**OTP** On-track plant, vehicles with rail wheels capable of running on railway track, limited by their engineering acceptance to running within a possession only. These are split into three main groups: rail mounted maintenance machines (RMMs), road rail vehicles (RRVs) and trailers.

**Plant operations provider** The company or organisation approved to carry out plant operations on the railway infrastructure.

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## 1 Options of Recovery

### 1.1 Assessment of failed OTP

- 1.1.1 The plant operations provider's representative on site should escalate the failure to their senior on-call manager to ensure the correct procedure is followed. Where the site is under the control of a separate company then their representative should also be advised, and kept informed of progress.
- 1.1.2 Immediately after the OTP has failed, the vicinity of the site of failure should be made safe. Appropriate measures should be taken to bring the OTP to a safe condition and to secure any attached load or trailer to prevent unexpected movement. The measures needed to bring the OTP to a safe condition will depend on the nature and circumstances of the failure. Precautions must be taken to ensure that people are not exposed to risk while the OTP is being secured. Specific consideration should be given for the potential of any other train movements in the immediate vicinity.
- 1.1.3 An initial assessment of the OTP is required to determine what has failed and whether it can be repaired in an acceptable time scale. Consideration should also be given as to whether testing will be required after repair and before the OTP can be moved or used.
- 1.1.4 The initial assessment should consider whether it is possible to remove the failed OTP from the railway line immediately from where it is to a place of safety, or tow by another vehicle to a more suitable location, eg a stabling point or an access point. The assessment should include consideration of at least the following:
- Reference to the OTP manufacturer's emergency recovery instructions and any contingency plans (or emergency preparedness plans) prepared by the plant operations provider.
  - Ensure the line to be used is clear all the way to the off-tracking point.
  - The lineside ground condition for suitability at the off-tracking location and the location where the item of OTP is to be left.
  - Security of the OTP and any systems that might foul the adjacent line.

- Access for any future repairs or recovery from where the OTP has been left.
  - Additional electrical isolations that could be required.
  - The need for exclusion zones around both the OTP and towing connections.
- 1.1.5 Stability of the OTP needs to be determined, to decide if the OTP can be moved in the configuration in which it failed. Also an assessment should be made of which parts of the OTP are out of gauge and which items can be brought back into gauge with the auxiliary power if provided, or other manual assistance. This assessment also needs to cover the route to be taken to the point of removal from the line to ascertain what needs to be brought back into gauge.
- 1.1.6 The orientation of the OTP needs to be assessed as it may affect how it can be towed (eg boom mounted MEWPs could prevent the fitment of a tow bar if the boom was towards the recovery vehicle). Consideration could be given to propelling from the alternate end, or to movement in the opposite direction.
- 1.1.7 The recovery method will be influenced by the availability and capability of other vehicles on site that may be able to assist.
- 1.1.8 If the brakes need to be disabled for towing then an assessment of gradient, distance, adhesion conditions, towing or propelling etc is required to determine the best method of recovery. The brakes should only be disabled after the OTP has been positively coupled to the rescue vehicle which has the capability to control the movement of the rescue vehicle and failed unbraked OTP. Isolation of brakes should only be considered as a last resort and the OTP should immediately be made safe after the recovery process.
- 1.1.9 Where the assessment has shown that the movement of an unbraked OTP is acceptable (as the last resort) consideration should then be given to ensuring the capability of the tow bar and the connection method. Consideration should also be given to any additional operational procedures that could be implemented to mitigate the potential for a break-away.
- 1.1.10 The security of component assemblies that could go out of gauge whilst being moved need to be considered.

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- 1.1.11 If the recovery of OTP is going to be via a vehicle not under the same plant operations provider, then consideration and agreement should be given to who is responsible for the recovery process.
- 1.1.12 There is a possibility that the failed machine is not on the approved suppliers list of the company taking responsibility for the movements during the recovery. The recovery plan agreed at the time should cover this scenario.
- 1.1.13 A process should be agreed before any movement takes place to check that any damage that could be caused to the infrastructure is able to be identified.

## **1.2 Removing from the line**

- 1.2.1 Where possible the OTP should use its auxiliary systems to bring itself into gauge and drive to the on and off tracking point.
- 1.2.2 Where the auxiliary system does not include the traction system it may be possible to bring it back into gauge and use another vehicle or manual force to move along the track.
- 1.2.3 If the failed OTP is leaking oil or fluids the leakage should be stopped before the OTP is moved. Any residual oil / fluids removed should be from the running rails and, as far as possible, from the trackbed.
- 1.2.4 It could be necessary to use lifting equipment to lift the failed vehicle from the line. A lift plan should be agreed prior to lifting.

## **1.3 Towed by Traction unit / OTP / road vehicle**

- 1.3.1 The emergency tow bar needs to be reviewed to see what type of vehicle it will fit to. The length of the tow bar will need to be considered depending on the orientation of the failed vehicle.
- 1.3.2 Where a suitable tow bar is not available or unable to be fitted, the use of ropes / chains could be used as a last resort. Consideration should be given to track features such as gradients and mitigation provided against the risk of runaway or collision into the towing vehicle. When selecting equipment to be used for towing or propelling consideration should be given to the following points:
  - Gross weight of the vehicle being towed or propelled.

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- Likely resistance to being towed or propelled (seized brakes, locked transmission etc).
- Poor track adhesion conditions. |
- Gradient on rail or ballast or other material.
- If certified lifting equipment is used then it should be taken out of use after the towing operation, quarantined, and subject to a thorough examination, in accordance with LOLER, prior to reuse.
- There should be an exclusion zone of at least the length of the rope / chain.